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BUNDLING AS A LEVERAGING CONCERN UNDER EC COMPETITION LAW

**A LEGAL EXAMINATION IN LIGHT OF RECENT ECONOMIC THEORY
AND IN COMPARISON WITH US ANTITRUST LAW**

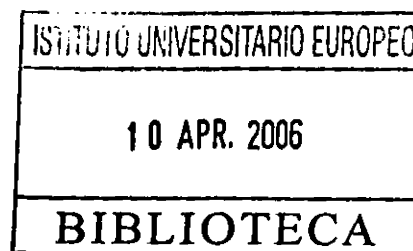
Jurian Langer

Supervisor:
Prof. Christian Joerges

Thesis submitted with a view to obtaining the degree of
Doctor of Laws of the European University Institute

Florence, March 2006

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INTRODUCTION

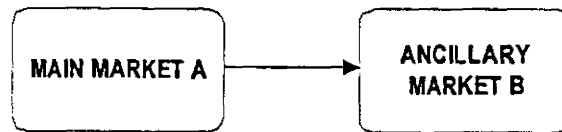
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1. Bundling as a leveraging concern

This thesis is about bundling and leveraging under EC antitrust law. Bundling is the situation in which goods A and B are offered together as one 'bundle.'¹ The most important types of bundling are: *pure* and *mixed bundling*. Pure bundling pertains to the situation in which goods A and B cannot be purchased on a standalone basis, only as a bundle. For instance, a newspaper bundles its stories with its ads and a hospital typically bundles surgery with anaesthesia. Neither ads nor anaesthesia are offered as standalones. Mixed bundling differs from pure bundling in that goods A and B remain, next to the bundle itself, available on a standalone basis. Examples of mixed bundles are: monthly passes on trains or buses; round-trip airline tickets; all-included vacation packages; and, film-with-camera. A third type of bundling is *tying*. This refers to the situation in which a customer who wants to buy A must also buy B, or *vice versa*. For instance, Coca-Cola might make the supply of its Coca-Cola drink conditional upon the purchase of other soft drinks that it carries. As a matter of terminology, I use the term 'bundling' to denote bundling (pure and mixed) or tying in general. Where a specific type is relevant, this will be specified.

Under EC and US competition law, an old and persistent fear is that bundling can result in leveraging of market power. Taken abstractly, bundling cases tend to follow a recurring pattern. The main market is dominated by one undertaking, and a second ancillary market is also relevant to the examination. This pattern is illustrated by the following figure:

¹ For completeness sake, it should be noted that a bundle may also concern services or a combination of services and goods.



The antitrust concern is that bundling the two markets enables the dominant undertaking to transfer its market position in the main market A into the second market B with the aim of extending it into B or to protect its original position in A. In this thesis, I call this concern the *leveraging theory*.

2. Increasing attention for bundling as a leveraging device

Under EC law, the leveraging theory has recently (re)gained greater prominence in merger and abuse cases dealing with bundling. For instance, the European Commission ("Commission") has addressed bundling in *Microsoft*² and *General Electric/Honeywell*.³ It condemned and heavily fined Microsoft under Article 82 EC Treaty for bundling its Windows Media Player ("WMP") with its dominant Windows operating system. *General Electric/Honeywell* involved the merger between General Electric ("GE") and Honeywell. One of the objections put forward by the Commission was the possibility that the new entity would offer a package of GE engines and Honeywell avionics and non-avionic systems. The Court of First Instance ("CFI") expressly discussed for the first time the fear of leveraging due to bundling in *Tetra Laval*.⁴ The case concerned the appeal against the Commission's decision to block the merger between the French polyethylene terephthalate ("PET") packaging company Sidel and the Tetra Laval group. One of the antitrust concerns put forward by the Commission was that the combination of Tetra Laval's dominant position in carton packaging and Sidel's leading position in PET packaging equipment would provide the new group with the ability to leverage its dominant carton position into the PET packaging equipment market by bundling both markets.⁵ The CFI accepted the Commission's theory *in principle*, but quashed the decision on the facts. On appeal, the CFI's findings were upheld by the European Court of Justice ("ECJ").⁶

² Case COMP/37.792, *Microsoft/W2000*, decision of 24 March 2004, www.europa.eu.int/comm/competition/antitrust/cases/decisions/37792/en.pdf

³ Case COMP/M.2220, *GE/Honeywell* [2004] OJ L48/1.

⁴ Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission* [2002] ECR II-4381.

⁵ Case COMP/M.2416, *Tetra Laval/Sidel* [2004] OJ L43/13.

⁶ Case C-12/03 P, *Commission v. Tetra Laval BV*, decision of 15 February 2005, not yet reported.

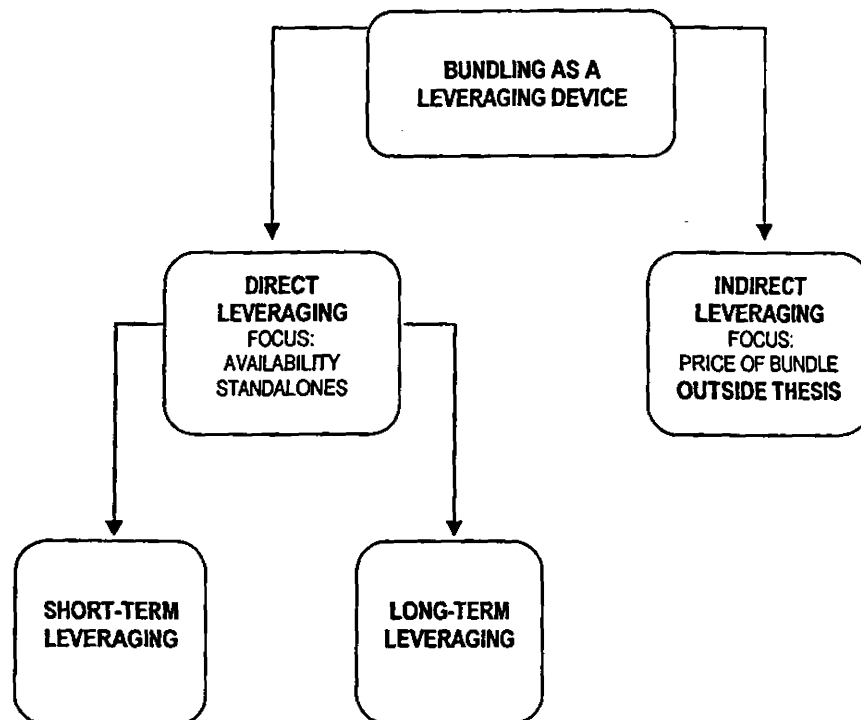
3. The concept of leveraging

At this point, it is opportune to consider more closely the concept of leveraging. A first, important distinction must be made between *direct* and *indirect* leveraging. Direct leveraging focuses on transferring market power from the main market to the ancillary market by denying consumers the possibility to buy any or only one of the goods of the bundle on a standalone basis. For instance, a tying arrangement results in an obvious denial as one of the products cannot be bought as a standalone. The same effect could be achieved by charging a higher price for the individual products than for the bundle of the products involved. By contrast, indirect leveraging focuses on the legality of the price of the bundle itself. The price of the bundle is usually at a discount to that of acquiring the products separately. As a result, the price itself could be so low that it might be illegal under competition law. For instance, the price of a bundle could result in predatory pricing⁷ or price squeezing.⁸ Antitrust issues relating to the price of the bundle *as such* are beyond the scope of this thesis. In this thesis I will focus only on direct leveraging.

Direct leveraging can be divided into two broad categories: leveraging in the *short term* and in the *long term*. In the short term, a firm with market power may engage in leveraging to immediately extend its market power from the main market A to the ancillary market B. Antitrust analysis focuses on the immediate ability of the bundling undertaking to raise prices for good B. Even in the case that an immediate increase of B's price is not feasible, bundling could lead to leveraging in the long term. By bundling both markets, the undertaking can raise entry barriers in the second market and foreclose that market in order to extend its original position or protect that position in the main. I will discuss both categories in this thesis. The emphasis of this thesis is illustrated by the following figure:

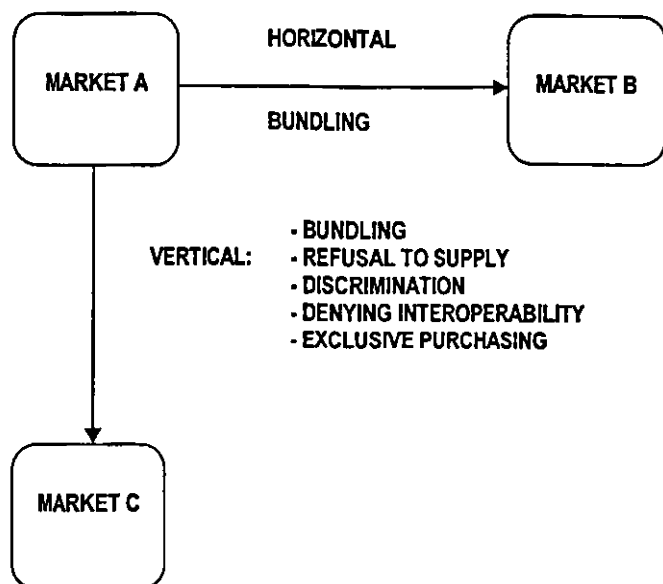
⁷ Predatory pricing is the pricing of goods at a very low level for the express purpose of driving out rivals from the market. The leading case in this area is Case C-62/86 *AKZO* [1991] ECR I-3359. In that case, the ECJ stated that "[p]rices below average costs [...] by means of which a dominant undertaking seeks to eliminate a competitor must be regarded as abusive" (at 71) and "prices below average total cost, that is to say, fixed costs plus variable costs, but above average variable costs, must be regarded abusive if they are determined as part of a plan for eliminating a competitor" (at 72). See also Case C-395/96 P, *Compagnie Maritime Belge v. Commission* [1996] ECR I-5951. For details, see Goyder, *EC Competition Law* (Oxford, 2003), pp. 286-289.

⁸ A firm that is dominant in the markets for both a raw material and a derived product may commit an abuse by charging an inflated price for the raw material to companies that compete with the dominant firm in the production of the derived product. Such a price squeeze applied by a dominant firm can constitute an abuse within the meaning of Article 82 EC Treaty. This description reflects Commission practice in Case IV/30.178, *Napier Brown v. British Sugar* [1988] OJ L284/41, referring to a price margin that is "insufficient to reflect that dominant company's own costs transformation" (at 66) and the Commission Notice on Application of Competition Rules to Access Agreements in the Telecommunications Sector, [1998] OJ C264/2, stating that "a price squeeze could also be demonstrated by showing that the margin between the price charged to competitors on the downstream market for access and the price which the network operator charges in the downstream market is sufficient to allow a reasonably efficient service provider in the downstream market [...] to obtain a normal profit" (at 118). For a succinct general review, see Crocioni and Veljanovski, "Price Squeezes, Foreclosure and Competition Law", JN 28 (2003), and, for a regulatory insight, see Sauter, "The Sector Inquiries into Leases Lines and Mobile Roaming", speech, IBC Conference, Brussels, 17 September 2001.



Short-term and long-term leveraging can take place in a *horizontal* or *vertical* context. Horizontal leveraging refers to the situation in which a company that is dominant in one market (market A) attempts to leverage that position into a horizontally-related market (market B). Market B is horizontally-related to market A when its competitive conditions depend on the competitive conditions in market A. In that context, the only existing leveraging practice is bundling. It can be done at wholesale as well as at retail level.

Vertical leveraging pertains to a situation in which a company holds a dominant position in the market for an essential input (market A) that is necessary for upstream or downstream firms to exert their activity in the downstream market (market C). The behaviour of the upstream company is intended to use its dominant position in order to acquire market power in the downstream market. Leveraging can be achieved by refusal to supply, denying interoperability, exclusive purchasing arrangements, or bundling. Vertical leveraging can only take place at the wholesale level. The following figure summarises these concerns:



As the above figure shows, bundling is one of the leveraging practices available in a vertical context. However, it is important to understand that this categorisation is not absolute. Likewise, the other business practices identified can sometimes result in bundling. For instance, the supplier of goods A and B can effectively bundle both goods by refusing to supply them on a standalone basis. Another example is denying interoperability that can effectively result in technical bundling of two goods. In the event of overlap, I consider for the purpose of this thesis the practice to constitute bundling.

4. The leveraging theory as a well-told horror story or a realistic tale?

As Motta writes in his recent textbook on antitrust economics, whether anti-competitive leveraging is a feasible practice is "[o]ne of the most passionate and intriguing debates in the anti-trust field."⁹ It is indeed easy for this debate among lawyers and economists to move from sober to perhaps zealous. The opposing arguments are easy to state, even to caricature by slogans.

In order to avoid communication failure, I will use the legal framework favoured primarily in the US to discuss the various views. This framework distinguishes *per se* tests from the rule of reason tests.¹⁰ It is

⁹ See Motta, *Competition Policy – Theory and Practice* (Cambridge, 2004), p. 362.

¹⁰ For details on this framework, see Evans, "How Economists Can Help Courts Design Competition Rules: An EU and US Perspective", *W.Comp.* 93 (2005), pp. 94-95. Recently, this framework was also advanced in the EU: EAGCP Report, *An Economic Approach to Article 82* (Brussels, 2005), http://europa.eu.int/comm/competition/publications/studies/eagcp_july_21_05.pdf. For a different view, see Vogelaar, *The European Competition Rules – Landmark Cases of the European Courts and the Commission* (Groningen, 2004), arguing that the ECJ has made clear that under Article 81(1) EC Treaty there is no question of infringements *per se* (pp. 33-46). In the line of Vogelaar, see Manzini, "The European Rule of Reason – Crossing the Sea of Doubts", *ECLR* 392 (2002).

also helpful to make a distinction between *per se* legal and *per se* illegal. The *per se* tests can further be divided into *modified* and *absolute* tests. Absolute *per se* illegal means that the practice is always unlawful. With modified *per se* illegal, a business practice is permitted under specified exceptional circumstances, whereas modified *per se* legal means that the practice is legal unless certain requirements are met.

Finally, it is useful to distinguish between *unstructured* and *structured* rules of reason. The unstructured rule concerns a direct balancing of the positive and negative effects of business behaviour involved.¹¹ By contrast, the structured rule examines the conduct under investigation through a series of screens that sort out the legal from illegal.¹² First, the rule supports a sort of safe harbour clause, under which some types of the behaviour under investigation would be legal, *per se*. Behaviour not covered by the proposed safe harbour is assessed under a second filter addressing its possible anti-competitive impact. In the absence of this effect, the practice would be deemed legal. If the anti-competitive effects are found to be possible and likely to harm consumers, then, as a third filter, an assessment of the possible pro-competitive explanations is carried out. In the absence of positive effects, the practice would be considered illegal. If there are positive effects, it is necessary to balance the anti-competitive impact and the pro-competitive explanations.

In this thesis, I will show that the legal picture of the ever-enlarging kingdom of corporate scoundrel sounds like a well-told horror story. In the early days of antitrust in the US, this was translated into an *absolute per se ban* for bundling. This arguably extreme position was succinctly phrased by US Judge Wyzanski in *United Shoe*. He claimed that a firm with sufficient market power leverages "whenever it does business."¹³ Under the EEC Treaty, and later the EC Treaty, this harsh approach was likewise visible. In *British Sugar*, for instance, the Commission found the mere fact that British Sugar had "[r]serv[ed] for itself" the market for the delivery of sugar sufficient grounds for condemning the refusal to give its customers the option of purchasing sugar on an ex-factory or delivered price basis.¹⁴

There has been criticism. Economists in particular have long challenged the persistent legal absolutism. The writings of prominent Chicagoans like Posner and Bork have cast serious doubt on the reality of the

¹¹ For an example of this type of application in the case of retroactive rebates, see Federico, "When Are Rebates Exclusionary?", ECLR 477 (2005), arguing that there are "simple and economically meaningful analyses of retroactive rebate schemes" (p. 480) allowing for the balancing of the positive and negative effects.

¹² For the application of a structured rule of reason to loyalty rebates, see Spector, "Loyalty Rebates: An Assessment of Competition Concerns and a Proposed Structured Rule of Reason", Comp. Pol'y Intern'l 89 (2005), pp. 108-114.

¹³ *United States v. United Shoe Machinery*, 110 F. Supp. 295 (D. Mass., 1953), at 24.

¹⁴ Case IV/30.178, *Napier Brown v. British Sugar* [1988] OJ L284/41, at 71.

legal tale. Their 'one-monopoly profit theorem' was considered fatal, or so it appeared, to leveraging in the short term. In combination with an initial understanding of the efficiencies of bundling, the legal community reacted by transforming the legal standard into a *modified per se illegality* test, permitting bundling under exceptional circumstances. Recent contributions by post-Chicagoans have nuanced the sweeping Chicago predictions with a revitalising effect on the leveraging theory. The Chicago arguments only hold weight under restrictive assumptions like the presence of a competitive market structure and of perfectly informed consumers. In addition, recent research on antitrust economics has shifted its emphasis to the leveraging effects in the long term, taking into account the foreclosing effects of bundling. Today there is an increasing awareness that bundling is often pro-competitive. The current debate appears to concern choosing between a *modified per se legality* test or a *structured rule of reason* test. In this thesis, I will propose to apply the latter test.

5. The rules of the game

In the EU and US, bundling is primarily controlled under *ex post* competition rules. Articles 81 and 82 EC are the basic instruments under European antitrust law to address bundling. Article 81 EC is concerned with restrictions of competition that are the result of cooperation between two or more undertakings, whether horizontal or vertical.¹⁵ Article 82 EC is essentially concerned with the repercussions on competition of behaviour by one company.¹⁶ In order for Article 82 EC to be applicable, the undertaking is required to hold a dominant position.¹⁷ The undertaking in question must abuse this dominant position. The core of the US antitrust regime is § 3 of the Clayton Act¹⁸ and § 1 and 2 of the Sherman Act.¹⁹ Within its mandate preventing unfair competitive practices, the Federal Trade Commission ("FTC") can also move against bundling under § 5 of the FTC Act.²⁰

¹⁵ Article 81 EC Treaty prohibits "all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between member states and which have as their object or effect the prevention, restriction or distortion of competition within the common market."

¹⁶ Article 82 EC Treaty prohibits "[a]ny abuse by one or more undertakings of a dominant position within the common market [...] in so far as it may affect trade between member states."

¹⁷ The wording of Article 82 EC Treaty ('one or more undertakings') lends to the view that the provision may be used to control also the abuses by oligopolists that collectively hold a dominant position. For a review of the concept of collective dominance, see Stroux, *EC Oligopoly Control* (EUI Thesis, 2003).

¹⁸ Clayton Act § 3 states that it is unlawful to "lease or sell goods, wares, merchandise, machinery, supplies, and other commodities, whether patented or unpatented, on the condition that the lessee or purchaser shall not use the goods of a competitor of the lessor or seller, where the effect of such a condition may be a substantially lessen competition or tend to create a monopoly."

¹⁹ Sherman Act § 1 states that "every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among several states, or with foreign nations, is declared to be illegal" and it proscribes in § 2 that it is illegal to "monopolize, or attempt to monopolize, or combine or conspire with any other persons to monopolize any part of the trade or commerce among several states."

²⁰ FTC Act § 5 reads as follows: "unfair methods of competition in commerce, and unfair or deceptive acts or practices in commerce, are declared unlawful."

Bundling is also addressed under the *ex ante* rules of merger control in the EU and US. In Europe, the present Merger Regulation 139/2004 was adopted by the Council pursuant to Article 83 and Article 308 of the EC Treaty.²¹ It replaced, with effect from 1 May 2004, the original Merger Regulation, Regulation 4064/89.²² The merger rules require the Commission to apply a Significant Impediment of Effective Competition ("SIEC") to merger concentrations. Under this test, the Commission can block a merger when it "significantly impede[s] effective competition in the common market."²³

In the US, mergers are assessed under the Clayton Act. The Clayton Act is comprised of sections 12 - 27 of Title 15 of the U.S. Code. It was first enacted in 1914 and was significantly amended in 1936 by the Robinson-Patman Act, and later in 1950 by the Celler-Kefauver Antimerger Act. Section 7 of the Clayton Act prohibits mergers and acquisitions where the effect "may be substantially to lessen competition, or to tend to create a monopoly."

6. The main characteristics of the current EC approach

The EC approach towards bundling can be summarised in three points: (1) the current approach is form-based; (2) the separate-product question is answered by a one-single factor analysis; (3) there is an increasing reliance on *ex ante* merger control to address bundling.

6.1. The current approach is form-based

In the EC, there has been a clear tendency to focus the antitrust analysis on the form of the practice and to qualify it based on formal characteristics rather than by its effects.²⁴ This form-based approach has two negative results. First, it insufficiently appreciates the positive effects of bundling. Second, it assumes too easily negative effects by merely characterising a particular business practice as bundling.

²¹ See Regulation 139/2004 on the Control of Concentrations between Undertakings, [2004] L24/1.

²² See Regulation 4064/89 on the Control of Concentrations between Undertakings, [1989] L395/1.

²³ See Article 2(3) of Regulation 139/2004.

²⁴ This reproach has also been made as a general criticism in relation to the existing case law of Article 82 EC Treaty. For a very strong claim, see Rousseva, "Modernizing by Eradicating: How the Commission's New Approach to Article 81 EC Dispenses with the Need to Apply Article 82 EC to Vertical Restraints", CMLRev 587 (2005), arguing that neither the Commission nor the Community Courts have ever examined the degree of foreclosure of actual competitors or of the likelihood of new entry in Article 82-cases (p. 605). For similar but less dramatic claims, see also Kallaughner and Sher, "Rebates Revisited: Anti-Competitive Effects and Exclusionary Abuse under Article 82", ECLR 263 (2004), stressing "the persistence of a 'structuralist approach' to Art. 82, in contrast to Art. 81 where a more economics based approach now prevails" (p. 263, also pp. 276-277).

For business, this is a bad position, for bundling is a fundamental part of many economic activities. In a certain sense, as the renowned Bork observes in his book, *The Antitrust Paradox*:

Every person who sells anything imposes a tying arrangement. This is true because every product or source could be broken down into smaller components capable of being sold separately, and every seller refuses at some point to break the market down any further.²⁵

Bundling is often good for consumers. Because bundled goods are in the same place, it can reduce search costs as well as the producer's distribution costs. Producers may likewise be a more efficient bundler than the consumer. For instance, few of us would choose to buy the individual parts of a car and assemble them ourselves. The current form-based approach downplays, and sometimes even neglects, these market realities and concludes too easily that a bundle leads to leveraging.

6.2. The separate-product question is answered by a one-single factor analysis

A second characteristic of EC law relates to the separate-product question in bundling cases. The concept of leveraging presupposes that a separate market to which the market power can be transferred exists. At first glance, the issue is deceptively simple. Virtually everyone agrees that a cup and plate make up a single product, as do a car and its tires. However, persistent controversy exists with regard to many other combinations. Are nail guns and the nails used in those guns separate products? Are constitute hardware systems and their maintenance services one product, or are they distinct?

With the advent of software bundles and other technologically-linked products in particular, this analysis becomes very complicated. An illustrative example for this complexity is the recent suit against Apple alleging that it unlawfully bundled its iPod with the iTunes Music Store.²⁶ Computer users who buy music from the iTunes Store are forced to use Apple's iPod. The lawsuit cuts to the heart of the separate-products question. It would be necessary to convince a court that a single brand like iTunes is a market in itself, separate from the rest of the online music market.

The separate-product question raises the issue where one should draw the line between a bundle of individual components and an integrated product with new features. The European Courts, along with the Commission, have applied a range of tests to answer this question. These tests have in common

²⁵ See Bork, *The Antitrust Paradox – A Policy at War with Itself* (New York, 1978), pp. 378-379.

²⁶ See www.news.bbc.co.uk/1/hi/technology/4151009.stm.

that they apply a one-single factor analysis. They focus on one particular factor in order to determine whether there are separate products. These tests applied focus on factors like interchangeability, consumer demand, inherent links or market practices. The principal objection against these tests is that they exclude information that can be very useful and essential in order to determine the separability of products. In my view, the separate-product issue is complex, and no one-single factor test is sufficient to answer that question.²⁷

6.3. There is an increasing reliance on *ex ante* merger control to address bundling

In a string of recent merger cases, the Commission has been greatly concerned with the ability of the new entity to start bundling.²⁸ These cases concern typically, but not exclusively, conglomerate mergers.²⁹ Conglomerate mergers are mergers where a company with a strong pre-existing position in one or more markets acquires another undertaking that has activities in one or more related markets.

It is important to recognise that leveraging concerns are of a different nature from the kind that the Commission normally has about mergers. For instance, horizontal mergers reduce the number of firms active in a market. The increase in market concentration could lead to price increases or a higher risk of tacit collusion in oligopolistic market structures.³⁰ Conglomerate mergers are different. Unlike the horizontal structure, these do not result from the merger creating an anti-competitive outcome, but rather, *future conduct*.

This means that leveraging will occur only after a given time. It will result from *post-merger* practices like bundling engaged by the new undertaking. In this context, one should keep in mind that bundling does not normally involve immediate price increases to consumers. Conversely, it often implies price reductions for consumers. It may, at the same time, potentially affect rivals by diverting demand to the combined entity, thus lowering their profits. Of course, where leveraging concerns are raised, the Commission emphasises that any price reduction or output expansion directly following the merger is of

²⁷ To my knowledge, the literature has also hardly paid any systematic attention to this question. For the bundling-specific literature, see Jansen, *Die Kopplungsverträge im Recht der Wettbewerbsbeschränkungen* (Berlin, 1968), ignoring completely the separate-product issue. Nor reference works elaborate extensively on this issue: see Jones and Sufrin, *EC Competition Law* (Oxford, 2004), pp. 452-462; and, Faull and Nikpay, *The EC Law of Competition* (Oxford, 1999), pp. 166-167.

²⁸ For instance, see Case COMP/M.2220, *GE/Honeywell* [2004] OJ L48/1 and Case COMP/M.1879, *Boeing/Hughes* [2004] OJ L63/53.

²⁹ Other examples are mergers in the telecommunications sector: for instance, see Case COMP/M.1845, *AOL/Time Warner* [2001] OJ L 268/28.

³⁰ Notably, vertical mergers are likewise analysed for their immediate negative effect on prices and output in terms of consumer welfare. The principal concern is that the new entity would have the ability to deny access to key inputs for its competitors. See Navarro *et al.*, *Merger Control in the EU* (Oxford, 2005), pp. 148-150, 273-277.

a merely *strategic nature*. The theory is that reductions are of short duration: consumer welfare will ultimately suffer as competitors are ultimately eliminated in the second market.

The Commission approach seems to have found fertile soil in the Community Courts. In *Tetra Laval*, for instance, the ECJ confirmed the Commission's competence to address leveraging effects resulting from mergers.³¹ More generally, the Court also confirmed that the Commission should not only examine direct and immediate effects resulting from mergers, but also indirect effects occurring in the foreseeable future.

7. The context of regulatory reform

It must be stressed that this thesis was written at the time of a regulatory reform of EC competition law. The law has changed dramatically over the last ten years. Under former Commissioners Monti and Van Miert, major reforms regarding enforcement of Article 81 EC and Community merger control were initiated and ultimately completed.³² In striking contrast, Article 82 EC has thus far largely escaped the "revisionary zeal" of DG competition.³³ At the same time, the Commission is under pressure to give clear guidance to the national competition authorities that, on 1 May 2004, became the principal enforcers of the competition rules.³⁴

In these circumstances, DG Competition has felt the need to review its approach towards Article 82. Director General Lowe indeed confirmed in 2004 that its services have started an internal review on the policy on abuses of dominant positions.³⁵ The reforms aim to develop an enforcement policy where, as Commissioner Kroes recently observed, the "exercise of market power must be assessed essentially on the basis of its effects in the market."³⁶ This implies that the assessment of each specific case will not

³¹ Case C-12/03 P, *Commission v. Tetra Laval BV*.

³² For details, see Ehlermann and Ratliff, "Mario Monti's Legacy for Competition Policy in Article 82", (2005) *Comp. Pol'y Intern'l.* 79; and, Wesseling, *The Modernisation of EC Antitrust* (London, 2000).

³³ See Eilmansberger, *op. cit.*, p. 129. The belated lack of interest and necessity to reform Article 82 EC can be explained by the fact that, for one, the provision itself was hardly applied by the Commission and that, on other hand, there were significant enforcement problems with Article 81 EC, calling for a more economic approach. For details, see Hawk, "System Failure: Vertical Restraints, Their Motivation and Justification", *CMLRev.* (1995) 973, stressing that the Commission too broadly applies Article 81 EC to agreements having little or no anti-competitive effect, lacking an "inadequate economic analysis" (pp. 974-975).

³⁴ For a detailed overview of the modernised system, see Steenbergen and Van der Woude, "Het EU-mededingingsrecht na 1 mei 2004: Verordening 1/2003", *SEW* 26 (2004).

³⁵ See Lowe, "DG Competition's Review of the Policy on Abuse of Dominance", *Fordham Corp. L. Inst.* (2004), p. 163.

³⁶ See Kroes, "Tackling Exclusionary Practices to Avoid Exploitation of market Power – Some Preliminary Thoughts on the Policy Review of Article 82", speech 05/537, 23 September 2005.

be undertaken on the basis of the form that a particular business practice takes. Rather, it will be based on the assessment of the anti-competitive effects generated by business behaviour.

That said, the tools available for modernising Article 82 EC are limited. Article 81 EC and the European merger rules were reformed by the revision of Council regulations³⁷ and soft law guidelines.³⁸ However, Article 82 EC cannot be changed by legislation, other than by an amendment of the Treaty.³⁹ There is no 'Article 82(3) EC,' and so no room for block exemptions. However, the Commission has a prosecutorial discretion. The Commission has announced to publish in 2006 guidelines explaining its enforcement ideas.

Bearing in mind these difficulties, in this thesis I will make a modest attempt to develop a modernised approach for the evaluation of bundling. In the concluding chapter, I will draft a framework that could be applied when developing guidelines on bundling.

8. The objective and methodology of this thesis

The central research question of this thesis is to analyse when and how bundling results in anti-competitive leveraging under EC competition law in light of recent economic theory. Put more precisely, the question posed is actually two-fold:

- First, what *should* be the standard for illegal bundling taking into account the recent economic literature on the topic, and how *does* it relate to the current standard applied?
- Second, what *should* be the appropriate legal instrument to implement the proposed standard, and what is presently the most applied legal instrument?

In order to accomplish this examination, this thesis will focus on the relevant legal-economic doctrine, laws, their interpretations and applications by the European Courts, the Commission, along with some national courts and antitrust agencies.

³⁷ See Regulation 139/2004 on the Control of Concentrations between Undertakings, [2004] OJ L24/1, replacing Regulation 4064/89, [1989] OJ L395/1.

³⁸ For instance, Commission Guidelines on Vertical Restraints, [2000] OJ C291/1.

³⁹ Amendments of the text of Article 82 EC are unrealistic. The newly drafted Treaty establishing a Constitution for Europe, signed on 29 October 2004 has kept the original text of the provision. See [2004] OJ C310. Article III-162 of the new Treaty reproduces Article 82 word for word. There is in my view one small exception that does not change the substance of the provision. Article 82 speaks of the 'common market', whereas Article III-162 refers to 'internal market.'

This thesis is legal in nature, not in the Law & Economics tradition. That latter movement states legal issues in economic terms.⁴⁰ For its proponents, the legal system is just one among many instruments used to achieve economic objectives. By contrast, I will use economic insights and theories to supplement legal considerations.⁴¹ Economic analysis, in particular macro-economic doctrine, is useful for competition lawyers in many ways.

First, it may help set lawyers' *prior belief* about the consequences of bundling. In such, economics can help lawyers devise, refine, and perhaps reform the legal test applicable to bundling. Second, the competition rules regulate business conduct. They are to be applied to facts that are economic in nature. A correct application of the law therefore requires a sound understanding of these facts. Third, EC law also worries about the alteration of the market structure and the dynamics of competition.⁴² A prognosis of such effects must be based on sound economics. Fourth, intent analysis plays an important role under competition law. It will often be impossible for even experienced lawyers or Commission officials to verify the plausibility of a certain business justification brought forward to deny anti-competitive intent. More sophisticated micro-economic expertise may frequently be necessary to evaluate whether such claims are justified.

A comparison is made with US law, its interpretation and its application, as this legal system has a long-standing enforcement history with bundling. The Sherman Act dates back to 1890, while the Clayton Act was passed in 1914. From the early days, bundling has been scrutinised under these Acts. Although the European approach is likely to occasionally result in a different outcome than the US regime, the antitrust issues are similar on both sides of the Atlantic. The American legal solutions and development of the case law therefore offer an invaluable source of information for EC lawyers. For this reason, the analysis of US law precedes the analysis of EC law.

⁴⁰ For the basics, see Holzhauer and Teijl, *Inleiding Rechtseconomie* (Gouda, 1995).

⁴¹ For a similar approach, see Van Duijvenvoorde, *Informatietechnologie en Europees Mededingingsrecht* (Deventer, 1996), writing that "[h]et gaat om een juridisch probleem waarvoor een oplossing wordt gezocht en waarvoor de economie als hulpwetenschap kan dienen" (p. 13). See also Bavasso, "The Role of Intent Under Article 82 EC: From 'Flushing the Turkeys' to 'Spotting Lionesses in Regent's Park'", ECLR 616 (2005), describing the interdisciplinary nature as follows: "antitrust law [which] seeks to apply economic principles to legal concepts" (p. 620).

⁴² For instance, see Gyselen, "Rebates: Competition on the Merits or Exclusionary Practice?", paper, 8th EU Competition Law and Policy Workshop, June 2003, p. 4; and, Fox, "What is Harm to Competition? Exclusionary Practices and Anti-Competitive Effects", Antitrust L. J. 371 (2002), p. 392.

9. The outline of the thesis

The structure and basic findings of this thesis are as follows. The thesis is in three parts. Part A is of a general nature, while Part B focuses on *ex post* regulation of bundling, and Part C focuses on *ex ante* regulation.

Chapters 1 and 2 form Part A. In Chapter 1, I will explore the economics of bundling. It describes and examines the development of economic thought on bundling over the last decades. This chapter is two-fold. On the one hand, I will look at the pro-competitive explanations of bundling, and, on other, discuss the anti-competitive impact of bundling. This chapter makes clear that the economic literature is complex. Although its result is sometimes ambiguous, it provides valuable insights into the reasons and ability of a firm to engage in leveraging by bundling products. On the basis of these economic insights, I seek to develop a structured rule of reason that can distinguish anti-competitive from pro-competitive bundling. This rule forms the basis for my assessment throughout the remainder of the thesis.

Chapter 2 discusses the general legal position of the leveraging theory under Article 82 EC. Leveraging requires a multi-market context: without a separate market to which the market power can be transferred, leveraging cannot exist. Article 82 EC clearly applies to situations in which the dominant position and the abuse are confined to same relevant market. In Chapter 2, I will examine if and how extensively Article 82 EC can be applied to these multi-market situations and seeks to categorise these various scenarios.

After having examined the leveraging theory on an economic-theoretical and abstract-legal level, I will move to the practical level of assessment for the remainder of the thesis. Chapters 3 and 4 form Part B, and concentrate on *ex post* regulation of bundling.

In Chapter 3, I will assess the American case law regarding bundling arrangements. This chapter focuses on three aspects in order to make a proper comparison and draw some lessons for EC law. I will first examine the various separate-product tests that have been suggested or applied in US academic and legal circles. These US tests apply a single-factor analysis. I will discuss the advantages and disadvantages of those tests, and assess whether and what kind of a multi-factor test would be advisable under US law. Second, I will describe the gradual erosion of the *per se* antitrust liability for dominant firms bundling two products. I will discuss the reasons articulated in the case law and literature for initially having a very strict approach and later one that is significantly more lenient. My examination

shows that US law appears to move to an *unstructured rule of reason* test for bundling. Finally, I focus especially on the pro-competitive explanations for bundling. I seek to categorise the various explanations accepted in the case law.

The EC approach is discussed in Chapter 4. I will examine in this chapter the legal standard for bundling applied under Articles 81 and 82 EC. As Article 81 EC has already been modernised a great deal, there is some divergence between Articles 81 and 82 EC. Under the former, some attempts have been made to embrace an effects-based approach. Nonetheless, EC law continues to be form-based and hostile towards bundling when taking into account economic insights. The fourth chapter discusses three main elements. First, I will discuss the separate-product tests applied by the European Courts and the Commission. After discussing the advantages and disadvantages of those single-factor tests, I will propose to apply a multi-factor test to determine separability under EC law. The multi-factor test proposed is appraised by applying it to the *Microsoft* case. Second, I will argue that EC law appears to apply a test resembling an *unstructured rule of reason*. This approach is ideologically based on the leveraging theory. I will make a legal-economic assessment of the Commission decisions in *Hilti*, *Tetra Pak II* and *Microsoft*. My examination suggests that there may have been different conclusions from those reached by the Commission. Finally, I will discuss the various bundling standards that have been proposed in the literature and case law. All these suggestions will be dismissed and I propose to apply a *structured rule of reason*.

Part C is the final part of this thesis. It consists of Chapter 5, and deals with *ex ante* regulation of bundling. In this chapter, I will discuss the role of merger control in order to prevent market structures facilitating anti-competitive bundling from being and/or coming into existence. This chapter has a two-fold character. First, I will examine in depth the Commission practice and Court decisions in this area. This will show the increasing tendency to rely on *ex ante* merger regulation under EC law. Second, I will discuss the necessity and consequences of this approach. In the concluding chapter, I will weave together the various threads that can be found throughout the thesis.

PART A

BUNDLING ON AN ECONOMIC-THEORETICAL AND ABSTRACT-LEGAL LEVEL

CHAPTER 1

THE ECONOMICS OF BUNDLING

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1. Introduction

"[A] lawyer who has not studied economics," a famous judge of the US Supreme Court once wrote, "is very apt to become a public enemy."⁴³ As an essential economic background for the rest of this work, Chapter 1 discusses the economic literature on bundling and its legal implications.⁴⁴ The interplay of economic and legal thinking is a reality. This interrelation applies very clearly to competition or antitrust law. The world of competition law, for decades driven by legal practice, is now increasingly influenced by economists and economically sophisticated practitioners. It goes without say that antitrust economics has been a subject with a long history in the US.⁴⁵ Over the past ten or so years, economics have also assumed greater prominence in EC competition analysis.⁴⁶

This chapter has two objectives. First, it seeks to identify the economic circumstances under which bundling can lead to anti-competitive effects, and how intervention against bundling can be justified as a legitimate remedy. Second, it also attempts to sketch the legal implications of these economic insights.

⁴³ See Brandeis, "The Living Law", in: Frankel, *The Curse of Bigness, Miscellaneous Papers of Louis Brandeis* (New York, 1934), p. 316.

⁴⁴ At the outset, an important caveat should be made. This chapter is written by a lawyer. It is an attempt to understand the economic literature through the eyes of a lawyer, and to deduce those aspects that, in my view, are important for lawyers.

⁴⁵ In particular, see Bork, *The Antitrust Paradox* (New York, 1978).

⁴⁶ For recent discussions on this relationship, see Hutchings, "The Competition Between Law and Economics", ECLR 531 (2004); Vickers, "Competition Economics and Policy", ECLR 95 (2003); and, Hildebrand, "The European School in EC Competition Law", W.Comp. 3 (2002).

This is not an easy undertaking.⁴⁷ On the basis of the current status of literature, I will reject both the *per se* legal ban and the *per se* illegality test, whether modified or not. I support the view that bundling should be submitted to a structured rule of reason. This chapter is particularly influenced by the writings of post-Chicago scholars.⁴⁸

2. A categorisation of bundling

Because the practice of 'bundling' comes in various ways, with multiple motivations and a range of consequences, it is useful to categorise the term.⁴⁹ The most important types of bundling are: *pure* and *mixed bundling*.⁵⁰ A third type of bundling is called *tying*.⁵¹

2.1. Pure bundling

The simplest case of bundling is pure bundling. It pertains to the situation in which different goods A and B are sold together in *fixed proportions*. A and B cannot be purchased on a stand-alone basis. They are sold together for a single price per bundle. If a consumer wants to purchase A, he must also buy B, or *vice versa*. This form of bundling is sometimes called "package tie-ins."⁵² Many pure bundles are so commonplace that they go unnoticed. For instance, mandatory warranties, bed with breakfast included in hotel accommodations, or a car with tyres, steering wheel, radio, engine and brakes are all bundles. A newspaper bundles its stories with ads and a hospital bundles surgery with anaesthesia.

A special form of pure bundling arises when the two products are linked technically in such a way that it is physically impossible for the consumer to separate them. This form of pure bundling is called

⁴⁷ See Bauer, "A Simplified Approach to Tying Arrangements: a Legal and Economic Analysis", *Vanderbilt L. Rev.* 283 (1980), noting that "the objectives of tying arrangements are often intermingled and, any event, will be difficult to identify" (p. 303).

⁴⁸ Antitrust economics may be divided into roughly three development periods: 'Classical', 'Chicago School', 'post-Chicago'. See Baker, "A Preface to Post-Chicago Antitrust", in: Cucinotta and Pardolesi *et al.* (eds.), *Post-Chicago Developments in Antitrust Law* (Cheltenham, 2002), p. 60.

⁴⁹ Some commentators would be happy with this attempt to categorise bundling. See Mitchell, *Die Rechtliche und Wirtschaftliche Bedeutung von Tying Contracts - Eine vergleichende Darstellung nach deutschem und amerikanischem Recht* (Cologne, 1961), noting that tying contracts as such occupy a very small niche in economic literature and that he has been "unable to find any highly theoretical writer who takes the trouble to manufacture a concise definition" (p. 5).

⁵⁰ See Motta, *Competition Policy - Theory and Practice* (Cambridge, 2004), pp. 460-461; Bishop and Walker, *The Economics of Competition Law* (London, 2002), pp. 209-210; and, Tirole, *The Theory of Industrial Organization* (Cambridge, 2001), pp. 172-173.

⁵¹ For instance, see Jones and Sufrin, *EC Competition Law* (Oxford, 2004), p. 452; and, Faull and Nikpay, *The EC Law of Competition* (Oxford, 1999), p. 165.

⁵² See Motta, *op. cit.*, p. 460.

'technical bundling.'⁵³ With a contractual pure bundle, there may be the possibility of disposing of the unwanted part of the bundle. By contrast, the disposal of the bundled good in a technical bundle may be costly or impractical, as it involves some form of lasting product design decisions. A good example of this is Microsoft's technological integration of Windows and Internet Explorer.

Another form of pure bundling occurs when a seller requires the buyer to purchase not only a certain good, but all units that the latter wishes to buy of another good. In this situation, different goods are sold together in *variable proportions*. This means that the quantity of B is not fixed, as it may vary from customer to customer. The items for sale are A-B, A-2B, A-3B ... packages. This form of pure bundling may be referred to as "dynamic tying."⁵⁴ An illustrative example of this form is a producer of photocopiers selling his copy machines under the condition that the purchaser buys toner only from him.

2.2. Mixed bundling

A second type of bundling is mixed bundling, which is sometimes referred to as "commercial tying."⁵⁵ The main difference with pure bundling is that the products A and B remain available on a stand-alone basis in a mixed bundle. This means that the consumers have the choice between the bundle and the separate components of the bundle. The key feature of mixed bundling is that the bundle of A and B is sold at a discount to the separate components.⁵⁶ This means that the price of the bundle is lower than the sum of the stand-alone prices of the products separately.⁵⁷ For instance, fixed menus in a restaurant are typically offered at a discount compared to orders *à la carte*. Other examples of mixed bundles are: monthly passes on trains or buses; round-trip airline tickets; all-included vacation packages; and, film-with-camera.

As for the differences between pure and mixed bundling, it should be noted that the distinction is not necessarily clear-cut. Mixed bundling may come close to pure bundling when the prices charged for the

⁵³ For a discussion of technical design issues, see Rahnasto, *Intellectual Property Rights, External Effects and Anti-Trust Law – Leveraging IPRs in the Communications Industry* (Oxford, 2003), pp. 156-163.

⁵⁴ See Slade, *The Leverage Theory of Tying Revisited* (GREQAM paper, 1997), p. 1. Other commentators refer to this form of pure bundling as "requirement tying." See Motta, *op. cit.*, p. 460.

⁵⁵ See Giotakos, "GE/Honeywell: A Theoretic Bundle Assessing Conglomerate Mergers Across the Atlantic", U. Pa. J. Int'l Econ. L. 469 (2002), p. 483.

⁵⁶ See Nalebuff, *Bundling, Tying and Portfolio Effects* (DTI paper, 2003), p. 14.

⁵⁷ It should be noted that if a mixed bundle is not sold at a discount, it is not classified as bundling, and not considered in this thesis. In rare cases, a mixed bundle might even be sold at a premium to the sum of the individual components. This may happen with tickets for a series of summer concerts. Typically, individual tickets go on sale after the programme tickets are sold out. If consumers expect the concert to be sold out, they may be willing to pay more for the series of tickets than an individual ticket for one concert. See Mohammed and DeGraba, "Intertemporal Mixed Bundling and Buying Frenzies", Rand J. Econ. 694 (1999).

individual offerings are high. Under these circumstances, it would not be rational for customers to buy individual products from the bundle in order to match them with a product produced by a competitor.

2.3. Tying

Tying may be described as a case *between* pure and mixed bundling. The term refers to the situation in which a customer who wants to buy A must also buy B.⁵⁸ In other words, it is not possible to buy B without A, which explains why this is a tie, not a bundle. Thus, the items for sale are B alone or the A-B package. When the sale of A is tied to the purchase of B, A is the tying product and B is the tied product.

Tying can be achieved in various ways. Contractual tying, which is the most common form, involves imposing a direct obligation to purchase the tied product when buying the tying product. The same result may also be indirectly achieved through conditions inducing customers to purchase the tied product through granting bonuses, rebates, discounts or any other commercial advantage. Instances of ties are: a supplier of metal containers might insist that its customers also use its can-closing equipment; Coca-Cola might make the supply of its Coca-Cola drink conditional upon the purchase of other soft drinks which it carries; and, a telephone company might require that purchasers of telephone services also obtain their telephone equipment from the operating company.

⁵⁸ See *Full-Line Forcing and Tie-In Sales* (The House of Commons Report, 1981), p. 5. Confusingly, Nalebuff sees tying as a special case of mixed bundling. What we call tying is for him "static tying." See Nalebuff (2003), *op. cit.*, pp. 15-16.

2.4. The various types and forms of bundling in overview

The preceding sections have discussed three types of bundling: pure bundling, mixed bundling and tying. Dynamic tying and technical bundling are two specific forms of pure bundling. The following table illustrates the differences between these concepts. It shows the availability of products A and B, depending on the type and form of bundling:

	PURE BUNDLING	TECHNICAL BUNDLING	DYNAMIC TYING	TYING	MIXED BUNDLING
A					*
B				*	*
A-B	*	*		*	*
A-B, A-2B, A-3B			*		

In the left column, the table indicates whether the products are available alone (A or B), in fixed proportions (A-B), or in variable combinations (A-B, A-2B, A-3B). In the top row, the type, or form of bundling (pure bundling, technical bundling, dynamic tying, tying, or mixed bundling) is determined. For instance, in the case of tying, customers may buy either B or only the A-B package.

As for the consumer effects, the following preliminary comment may be made. In the case of mixed bundling, three items (A, B, A-B) are available, whereas under pure or technical bundling, only one item is available (A-B). This conclusion may already be seen as indicative of a more lenient approach to mixed bundling.

3. Discussion of the efficiency reasons

In Section 3, I will examine the pro-competitive explanations for bundling. "Many products," Van den Bergh and Camesasca write, "are naturally and efficiently tied together or bundled."⁵⁹ Selling products

⁵⁹ See Van den Bergh and Camesasca, *European Competition Law and Economics - A Comparative Perspective* (Antwerp, 2001), p. 279.

together may indeed generate efficiencies. The recognition of this proposition can primarily be attributed to the influence of the Chicago school.⁶⁰

However, it is important to carefully assess the Chicago arguments for two reasons. First, some commentators seem to mistakenly make a claim of large generalised efficiencies due to bundling. To be sure, bundling may result in efficiencies, but it would appear that the scope for legitimate efficiency allegations is sometimes narrower than some writings suggest.⁶¹ Second, efficiencies that are often attributed to bundling can be achieved without bundling.

The following alleged efficiencies are critically discussed: (1) cost savings; (2) product quality and product improvements; (3) reduction of the double marginalisation problem; and, (4) bundling as a price discrimination device.⁶² This section ends with two caveats that should be taken into consideration when assessing the plausibility of potential efficiencies.

3.1. Cost savings

When legally challenged, firms often claim that their bundling arrangements result in cost savings. For one, there is ample literature that confirms these claims.⁶³ For instance, Salinger recognises that cost synergies are most valuable when consumer valuations are positively correlated.⁶⁴ If most consumers would buy both goods A and B when sold separately, any cost savings from selling together creates an incentive for a monopolist to bundle the goods when the product valuations are positively correlated.

⁶⁰ For reference work, see Easterbrook, "The Limits of Antitrust", Tex. L. Rev. 1 (1984); Bork, *op. cit.*; and, Posner, *Antitrust Law: an Economic Perspective* (Chicago, 1976). For a provoking critique, see Fox, "The Modernization of Antitrust: A New Equilibrium", Cornell L. Rev. 1140 (1981).

⁶¹ These commentators suggest a *per se* legality rule for bundling on the basis that the efficiency effects of bundling are ubiquitous, while the anti-competitive effects are highly unlikely. For instance, see Ahlborn, Evans and Padilla, *The Antitrust Economics of Tying – A Farewell to Per se Illegality* (AEI-Brookings paper, 2003).

⁶² Recent work empirically suggests that a bundling strategy may also be seen as a promotional device. Analysing the Italian newspaper market where weekly supplements are sold with the newspaper at a higher price, Argentesia shows that people who would not buy the newspaper do indeed purchase it because they are attracted by the supplement. See Argentesia, *Demand Estimation for Italian Newspaper: The Impact of Weekly Supplements* (EUI paper, 2003).

⁶³ For references, see Slade, *op. cit.*, p. 4.

⁶⁴ See Salinger, "A Graphical Analysis of Bundling", J. Bus. 85 (1995). There is a positive correlation between the goods A and B, when customers with a high valuation for good A also have a high valuation for good B.

On the other hand, the literature also doubts whether those savings would be significant.⁶⁵ Cost savings may be grouped into two main categories: (1) those coming from consumption, and (2) those arising from benefits on the production side.⁶⁶

3.1.1. Consumption efficiencies

Consumption efficiencies relate to the advantages for the customer in purchasing products from the same company rather than from separate suppliers. This benefit may be particularly prevalent when consumers purchase complementary goods from the same producer.⁶⁷ The leading rationale is transaction-cost economics. Williamson was one of the first to emphasise the need to take into account transaction costs in the antitrust analysis of business practices.⁶⁸ Transaction costs concern the costs of trading with others above and beyond the price of a product, such as the cost of drafting and enforcing the contract.⁶⁹

A common type of economies of scope on the consumer-side is generated by search costs. Bundling reduces the costs of searching for the most appropriate combinations of products that satisfy a complex need.⁷⁰ "Tying is," Tirole nicely summarises, "a ubiquitous feature of economic activities, simply because it economizes on transaction costs."⁷¹ Thus, purchasing various products at once may be beneficial for consumers.

Notably, it is by no means obvious that efficiencies arising from joint distribution are always clear-cut. For instance, Ahlborn, Evans and Padilla claim that integrated software is an illustrative example of consumer-side economies of scope because it is "a response to consumers who value the ease of use of bundled software."⁷² When assessing a claim of consumption-side efficiencies, it is important to analyse whether bundling is necessary to realise these economies. It may be the case that supplying

⁶⁵ See Scherer and Ross, *op. cit.*, noting that "it is doubtful that the savings realized in this way could be very significant" (p. 565); and, Utton, *Market Dominance and Antitrust Policy* (Cheltenham, 2003), p. 243.

⁶⁶ See Kühn, Stillman and Caffarra, "Economic Theories of Bundling and Their Policy Implications in Abuse Cases: An Assessment in Light of the Microsoft Case", ECJ 85 (2005), p. 103.

⁶⁷ Complementary goods are goods which are typically consumed or resold together.

⁶⁸ See Williamson, "Assessing Vertical Market Restrictions: Antitrust Ramifications of the Transaction Cost Approach", U. Pa. L. Rev. 953 (1979). In his classic essay, *The Nature of the Firm* (1937), Coase laid the foundations for the transaction-cost economics. For reference work, see Schmalensee and Willig (eds.), *Handbook of Industrial Organisation* (Amsterdam, 1989).

⁶⁹ See Buttery, "Blanket Licensing: a Proposal for the Protection and Encouragement of Artistic Endeavour", Col. L. Rev. 1245 (1983).

⁷⁰ See Ahlborn, Evans and Padilla, *op. cit.*, p. 40.

⁷¹ See Tirole, "The Analysis of Tying Case: A Primer", *Comp. Pol'y. Int'l.* 1 (2005), p. 15.

⁷² See Ahlborn, Evans and Padilla, *op. cit.*, pp. 40-41. They refer to Evans, Padilla and Polo, "Tying in Platform Software: Reasons for a Rule of Reason Standard in European Competition Law", *W.Comp.* 509 (2002).

the products together is sufficient to satisfy consumer demand rather than offering a technically integrated product. Returning to Ahlborn, Evans and Padilla's example, it may not be necessary for the existence of the alleged efficiencies for the programme codes to be intermingled. Rather, software firms may sufficiently respond to consumers' demand by supplying the programmes, for instance, on the same disk.

3.1.2. Production-side efficiencies

Among economists, it is normally accepted that bundling may lead to a reduction of the supplier's costs of producing and distributing products by achieving economies of scope.⁷³ The simple argument is that bundling is a way to achieve cost savings within the portfolio of a firm. For instance, it is cheaper for an undertaking to distribute their software packages on one single CD than to distribute all software separately. Another example is that supplies of special copying machine toner or paper may be delivered by maintenance personnel during routine servicing in order to save the costs of separate visits.

Some economists seem to defend those efficiencies quite easily. For instance, Ahlborn, Evans and Padilla claim, as an example for such efficiencies, that "machines may be utilised to manufacture two or more products allowing the producer to reduce the size or complexity of its factories."⁷⁴ Because bundling is primarily a sales strategy, it should be noted that it is very likely that potential efficiencies arise on the consumer side. This does not mean that production-side economies do not occur, but they are only present if consumers clearly have an interest in purchasing the products together because of their preferences for joint consumption. In other words, there is no reason why goods that are jointly produced must necessarily be supplied or sold together.

There could be a case for bundling when assembling the complementary parts of a product.⁷⁵ For instance, it may be cheaper for a car manufacturer to assemble a car than an individual customer purchasing the parts separately. In itself, this conclusion is not sufficient reason for bundling. It is commonplace for customers to choose the components and then have the manufacturer put them together. However, there are limited possibilities to do this at low cost given the costs of product design.

⁷³ See Whinston, "Exclusivity and Tying in US v. Microsoft: What We Know, and Don't Know", J. Econ. Pers. 63 (2001), p. 64; Carlton and Perloff, *Modern Industrial Organization* (Reading MA, 1999), pp. 303-304; Scherer and Ross, *Industrial Market Structure and Economic Performance* (Boston, 1990), pp. 565-566.

⁷⁴ See Ahlborn, Evans and Padilla, *op. cit.*, p. 39. See Kühn, Stillman and Caffarra, *op. cit.*, calling this the "joint production fallacy" (p. 107).

⁷⁵ See Nalebuff (2003), *op. cit.*, pp. 31-32.

Therefore, it appears easy to make a claim for efficiencies, but it is not necessarily the case that economies of scope in assembly lead to bundling at the sales level.

3.2. Product quality and product improvements

Typically, economists assert that bundling may assure product quality by neutralising: (1) the confusion externality regarding the source of poor performance, and (2) the cost-sharing externality when consumers knowingly use inferior products with the bundling good. Another pro-competitive reason mentioned in the literature is that bundling may result in product improvements.

3.2.1. Quality assurance

The quality-assurance explanation for bundling arrangements is widely accepted in the literature.⁷⁶ In general, the explanation appears to make sense when: (1) it concerns complementary inputs for a particular product package; (2) consumers are imperfectly informed; and, (3) there is a potential for competitive suppliers of the bundled good to free-ride on the reputation of the firm supplying the bundling good. Firms often rely on this argument in relation to aftermarkets, where the original equipment already purchased may be used in conjunction with spare parts and maintenance services offered by independent suppliers.⁷⁷

3.2.1.1. The confusion externality

Let us suppose a firm producing a bundle consisting of complementary goods A and B. Because the benefits of bundle accrue to the bundling producer itself, independent producers of B do not realise the benefits associated with A's reputation. As a result, independent producers do not have the incentive to produce high quality bundled goods because they do not account for the dangers of a low quality bundle. If inferior bundled goods are used in conjunction with the bundling good, poor joint performance may occur. The problem is that users of the bundle are unable to distinguish whether the poor performance reflects a poor quality bundling good, or a poor quality bundled good. Under these circumstances, bundling may assure that inferior goods do not hurt the seller's reputation for the bundling good because it would remove confusion about the source of poor performance. It is doubtful

⁷⁶ See Viscusi, Vernon, Harrington, *Economics of Regulation and Antitrust* (London, 1995), pp. 255-256; Carlton and Perloff, *op. cit.*, p. 305; Baxter and Kessler, "Toward a Consistent Theory of the Welfare Analysis of Agreements", *Stan. L. Rev.* 615 (1995), p. 621; and, Bork, *op. cit.*, pp. 379-380.

⁷⁷ For instance, see *Eastman Kodak Co. v. Image Technical Services*, 504 U.S. 451.

whether a mixed bundle could really guarantee quality in such a case. Because products are supplied separately as well, the production process does not leave much room for quality control. Quality justifications are thus more plausible for pure bundling and tying arrangements.

In recent years, the general application of the confusion-externality argument has arguably been nuanced.⁷⁸ Iacobucci provides a simple, analytical framework showing that the explanation may often be rejected because it fails to account for "buyer rationality."⁷⁹ The confusion externality requires consumers to be unable to distinguish between the quality of A and the inferior B *prior* to the purchasing decision and *after* B has been used in conjunction with A.⁸⁰ Furthermore, it is necessary, in order to cause harm, that a reputation for quality is valuable.

It should be noted that these conditions are fairly restrictive. First, if reputation is irrelevant, there is no need to bundle because it is not necessary to protect it. This may be the case, perhaps, when buyers do not care about high quality products. Second, buyers that value high quality bundled goods will buy from the producer of A because they recognise that independent suppliers have a relatively weak incentive to provide high quality bundled goods. Consumers that care for high quality render the externality between independent suppliers and the bundling good producer unimportant.

Thus far, it concerned our case that consumers unknowingly bought inferior bundled good products. There is also some suggestion that bundling may be useful when they knowingly purchase low quality bundled goods. As consumers do not account for the potential harm to the reputation of the producer of A, they impose an externality on the producer of the bundling good. Given the stochastic nature of the relationship between quality and performance, this argument should be nuanced.⁸¹ When using an inferior good, this may lead to poor performance, leading to a lower assessment of the likely quality of A.

On the other hand, if there is no breakdown, there may be an upgrade of the perceived quality because consumers may infer that there is greater chance that the good is of high quality. This implies that the expected reputation and profits associated with a high quality machine will in some circumstances be *enhanced* if low quality is purchased. Thus, if this positive effect dominates, then the confusion-externality may not apply.

⁷⁸ See Nalebuff (2003), *op. cit.*, suggesting a critical approach as he notes: "[s]afety and quality may be the last refuge of a scoundrel" (p. 21).

⁷⁹ See Iacobucci, *Tying as Quality Control: a Legal and Economic Analysis* (University of Toronto paper, 2004), pp. 1-2.

⁸⁰ See Iacobucci, *op. cit.*, pp. 6-8.

⁸¹ See Iacobucci, *op. cit.*, pp. 20-39.

3.2.1.2. The cost-sharing externality

In addition to the confusion externality, there may be a different externality that could be neutralised: the cost-sharing externality.⁸² Bundling may knowingly address the perverse incentives of purchasers to buy inferior bundled goods where the supplier directly bears some of the costs related to the bundling good's performance. This may happen when, for instance, the supplier of A guarantees satisfactory performance. Purchasing sub-optimal quality B from independent providers allows the buyer to impose costs on the supplier of A. To anticipate this, such supplier may charge a higher price for its agreement to bear part of the costs of the bad performance. Rather than setting a higher price, the same result could be achieved by imposing a bundle, which commits the purchaser to buy only high quality goods.

Notably, the cost-sharing externality is not based on the inability of purchasers of A and B to distinguish between high and low quality bundled goods either *ex ante* or *ex post*. It is based on the incentives that arise when the purchaser can share the costs of knowingly purchased inferior bundled goods. Even if the use of inferior bundled goods results in poor performance that may clearly be attributed to the inferior bundled goods, the supplier of the bundling good may prefer a bundle in order to avoid sharing the direct costs of poor performance.

3.2.2. Product improvements

When goods A and B are bundled, the combined product may offer benefits to consumers above and beyond the individual components. Efficiencies may particularly arise from higher expected quality or functionality when components of a product must function together.⁸³ The caveat is that such claims should be assessed carefully. While consumers may think that using two products from the same producer would be more convenient or better, this does not imply that bundling is necessary in order to realise these possible efficiencies.

⁸² See Iacobucci, *op. cit.*, pp. 39-42.

⁸³ See Ahlborn, Evans and Padilla, *op. cit.*, pp. 41-42.

3.3. Reduction of the double marginalisation problem

Another potential efficiency reason articulated in the literature is that bundling may be used to avoid double marginalisation.⁸⁴ The issue of double marginalisation has been discussed extensively in the context of vertical restraints.⁸⁵ Let us suppose a manufacturer and a retailer with significant market power. Under these circumstances, the manufacturer will mark up wholesale price based on marginal cost, while the retailer is expected to mark up the retail price accordingly with his input price. As a result, the retail price is higher, which in turn leads to a lower output for the manufacturer's product. Imposing vertical restraints would, many economists argue, avoid this problem.

The theoretical foundation for this rationale is the so-called 'Cournot effect'.⁸⁶ Cournot argues that single-product monopolists for one of the complementary products will set, when acting independently, an inefficiently high price. The reason is that each individual firm ignores that a price cut would increase the demand for complementary products of other firms. If they were to merge or coordinate their pricing, they would lower their prices and consequently make higher profits.

The seductive simplicity of this argument appears to have led to some confusion about when it is applicable. For instance, Ahlborn, Evans and Padilla claim that bundling also allows the realisation of the Cournot effect.⁸⁷ Following the intuition of Cournot, their argument is that, if two monopolists get together, they would price the bundle of their goods lower than they would when acting individually. Let us suppose two producers of separate complementary goods. Because these producers will not take into account the impact of pricing based on each other's demand, each firm causes a negative externality on the complementary products by raising price. If and when the two firms bundle, this negative effect would be internalised and profits and consumer surplus would thereby increase.

However, Ahlborn, Evans and Padilla's understanding of the Cournot effect appears to be somewhat flawed.⁸⁸ Arguably, the principle does not offer any efficiency explanation. First, the actual price effect is achieved simply because all of the products are sold by the same firm. The alleged efficiency does not

⁸⁴ See Ahlborn, Evans and Padilla, *op. cit.*, pp. 42-43; and, Nalebuff (2003), *op. cit.*, pp. 37-38.

⁸⁵ See Tirole, *op. cit.*, pp. 333-335.

⁸⁶ See Cournot, *Researches into the Mathematical Principles of the Theory of Wealth* (New York, 1929, translated by Bacon).

⁸⁷ See Ahlborn, Evans and Padilla, *op. cit.*, pp. 42-43. To illustrate their argument, they cite Owen and Waldman, *Video Economics* (Cambridge MA, 1992). Referring to media markets, Owen and Waldman note, "in an unbundled system, a change in the price charged to subscribers for a given program service will affect not merely the demand for that service but also demand for transmission, and possibly the demand for complementary program services" (p. 219), making, arguably, it more efficient to bundle content with delivery.

⁸⁸ See Kühn, Stillman and Caffarra, *op. cit.*, writing that "[c]ertain claims on general efficiency benefits of bundling also appear to arise from simple misinterpretation of theory" (p. 20).

seem to depend on bundling at all. When selling complementary products, a monopolist will set lower prices compared to independent suppliers. This is due to internalisation of the complementarity between products, not due to bundling.

Second, contrary to Ahlborn, Evans and Padilla's claimed result, bundling may sometimes even achieve the opposite result. Nalebuff provides an analytical framework showing that bundling may result in a significant reduction of price competition between the components of a bundle. As a result, Nalebuff argues that the individual prices may actually increase.⁸⁹

Let us assume a firm that offers all complementary goods of a bundle and that faces competition for each component. When bundling is not allowed, price competition is happening component by component. Consumers purchase each component of the bundle from the firm offering the best deal for that specific component. But, when bundling is allowed, a price cut by one of the single-product suppliers makes marginal customers switch from purchasing the bundle of the multi-product company to buying the individual components from the competition. This would also mean that part of the benefits of inducing consumers to switch is gained by other single-product firms. The reason for this is that consumers with a strong preference for one or more of the components offered by the bundling firm will not easily switch in the event of a price cut by one of the competitors. As a consequence, the individual firms have less of an incentive to cut prices than if all competitors of individually produced components would be producing as a single firm.⁹⁰

In sum, Nalebuff's observation that bundling may lead to significant price increases is interesting.⁹¹ While competition was effective in the absence of coordination, bundling makes the coordination reappear and prevents an aggressive competitive response to the prices of the bundling firm.

⁸⁹ In particular, see Nalebuff, "Competing Against Bundles", in: Hammond and Myles (eds.), *Incentives, Organization and Public Economics: Papers in Honour of James Mirrlees* (Oxford, 2000), p. 321. For earlier related work, see Matutes and Regibeau, "Compatibility and Bundling of Complementary Goods in a Duopoly", *J. Ind. Econ.* 37 (1992).

⁹⁰ See Nalebuff (2000), *op. cit.*, pp. 329-331. The flip-side of the Nalebuff's prediction is that if rivals can offer a competing bundle, then the ensuing bundle-versus-bundle competition is the most competitive outcome of all. See Nalebuff, "Tied and True Exclusion", *Comp. Pol'y. Intern'l.* 41 (2005), p. 50.

⁹¹ See Nalebuff (2000), *op. cit.*, pp. 332-333.

3.4. Price discrimination

The last prominent efficiency rationale stated in the literature is price discrimination.⁹² Bundling is a useful tool to reduce the heterogeneity in customer valuations. Stigler has assessed the argument very perceptively in his classical analysis of the sale of films to TV stations in packages during the 1940s and 1950s.⁹³ While distinct, but comparable buyers of films may similarly value the entire package of the films, they may have different valuations of individual films in the package. By setting a single-package price, Stigler explains, the seller does not have to determine these relative values for individual components. Yet, the seller can price discriminate between buyers in terms of the implicit prices paid by different buyers on individual films within the package.

Stigler's major contribution lies in showing that it may be *in principle* profitable for a multi-product monopolist of independent products to bundle them together. It is now widely accepted that bundling (pure and mixed) and dynamic tying allow firms to increase profits by working as a price discrimination device. To be precise, it functions as a second-degree price discrimination device because it is practised via consumers' self-selection.⁹⁴

3.4.1. Pure and mixed bundling as a price discrimination device

Adams and Yellen extend Stigler's analysis of multi-product monopoly with independent goods.⁹⁵ They describe a simple framework for analysing the benefits to a multi-product monopolist of bundling independently produced goods when consumers have differing tastes.⁹⁶

⁹² See Posner, *op. cit.*, noting that "[p]rice discrimination by means of tie-ins or otherwise is the most important but not the only form" (p. 183). See also Motta, *op. cit.*, pp. 462-463; Tirole (2001), *op. cit.*, p. 146; Van den Bergh and Camesasca, *op. cit.*, p. 280; Scherer and Ross, *op. cit.*, p. 565; and, Bork, *op. cit.*, p. 376. For a sceptical view, see Nalebuff (2003), *op. cit.*, writing that "[w]hile we are not convinced this is the most important application of bundling, either for films or for antitrust authorities, it is surely the most studied and best understood" (p. 33).

⁹³ See Stigler, "United States v. Loew's Inc.: a Note on Block Booking", *Sup. Ct. Rev.* 152 (1963). Stigler's price discrimination explanation came under attack by Kenney and Klein, "The Economics of Block Booking", *J. L. & Econ.* 345 (1983). They argue that, as the films were sold to only one TV station in each separate market, it was not necessary for sellers to set prices on films. Sellers could leave it up to competition among TV stations in each market to set relative prices of individual films.

⁹⁴ For reference work, see Philips, *The Economics of Price Discrimination* (Cambridge, 1993). First-degree price discrimination is simply perfect price discrimination, where a firm can vary price by unit and by consumers in order to extract all consumer rent. Second-degree price discrimination relies on consumer self-selection, as it pertains to the situation where an undertaking uses selling practices to induce consumers to reveal whether they have high or low willingness to pay. Third-degree price discrimination represents the variation of uniform prices across groups of distinguishable consumers such as demand-elasticity, time of day, or location.

⁹⁵ In case of independent goods, there is no systematic relationship between the goods A and B.

⁹⁶ See Adams and Yellen, "Commodity Bundling and the Burden of Monopoly", *Quart. J. Econ.* 475 (1976).

A typical rendition of their research goes as follows. Let us assume a firm with a monopoly for goods A and B; the products are independent; and, they are produced at zero costs. The monopolist sells the goods to two consumers, 1 and 2. Consumer 1 is willing to pay at most € 900 for A and € 300 for B. Consumer 2 is willing to pay at most € 1000 for A and € 200 for B. Both consumers are willing to pay € 1200 at most for the A-B package. The following table gives an overview of the willingness to pay for the products available:

	CONSUMER 1	CONSUMER 2
A	900	1000
B	300	200
A-B	1200	1200

When selling the products individually, the monopolist would sell A for € 900, sell it to both consumers, and make a profit of € 1800. He would sell B for € 200 and make a profit of € 400. The total profit from selling A and B separately would be € 2200. If the monopolist were to sell the products as a bundle, he could charge € 1200 per bundle and make a profit of € 2400. Therefore, bundling allows the monopolist to extract more consumer surplus and make more profit.

One major limitation of Adams and Yellen's work is that it concerns a multi-product monopolist. A single-product monopolist may not have the incentive to bundle independent products because it has only monopolised one good instead of both goods.⁹⁷ This point is stressed by Schmalensee.⁹⁸ Following the formal set-up of Adam and Yellen, he investigates the economic implications of bundling of independent goods by a single-product monopolist. His model shows that pure bundling is never more advantageous for such a monopolist than simply selling its products separately.

Assume a monopoly over A, whereas B is competitively produced. If it were profitable for the single-product monopolist to bundle B to A, then any competitive good could be bundled to A because A and B are independent products. By contrast, mixed bundling may still enhance profits.⁹⁹ Arguably, the advantage of mixed bundling should especially be apparent when consumers' values for the involved components are highly negatively correlated. This happens when consumers with a high valuation for one component typically have a low valuation for the other component. Under these circumstances,

⁹⁷ See Carlton and Perloff, *op. cit.*, pp. 312-313.

⁹⁸ See Schmalensee, "Commodity Bundling by Single-Product Monopolies", *J. L. & Econ.* 67 (1982), pp. 68-69.

⁹⁹ See Schmalensee (1982), *op. cit.*, pp. 69-71.

mixed bundling significantly reduces the heterogeneity in valuations allowing the firm to extract more consumer surplus.

Another limitation is that their model and its follow-ups assume away resale markets.¹⁰⁰ A firm engaging in price discrimination must be able to prevent resale by customers who pay the lower price either on the whole or on one of the components to those who pay the higher price. When claiming price discrimination, it is therefore important to carefully assess whether resale may take place. A final and related reason why price discrimination may be imperfect is that no firm has a perfect monopoly. This means that consumers may find ways to create substitutes. Consumers will do their best, notes Nalebuff, to avoid being subjected to price discrimination. These efforts may result in costs for the bundling firm that are particularly large in the case of high-value consumers.¹⁰¹

Nalebuff illustrates his point with the case of airline pricing. When offering discounted tickets to leisure customers, air companies typically impose Saturday night stay-over restrictions, whereas business travellers are still supposed to pay full fare for the flight. In response, some business travellers extend their stays in order to include a Saturday night. These efforts may result in social losses, well above the incremental gains from the extra demand by leisure travellers.¹⁰²

3.4.2. Dynamic tying as a metering device

Beginning with Bowman in 1957, it has long been understood that bundling may be used as a metering device.¹⁰³ If consumers use a good in a more or less intensive way, the supplier of that good may want to sort consumers according to their intensity of use. In doing so, a firm can determine the consumers' willingness to pay, make them pay accordingly and therefore extract as much as surplus as possible from them. Metering may be done directly or through bundling. As for the former, users are charged a per-use or metered fee that is typically linear. For instance, a taxi meter often has a fixed charge for the first distance and then a linear charge thereafter. As for bundling, metering is based on the use of a related product.

¹⁰⁰ See Schmalensee, "Pricing of Product Bundles", J. Bus. 211 (1984), pp. 211-212.

¹⁰¹ See Nalebuff (2003), *op. cit.*, pp. 77-79.

¹⁰² See Nalebuff (2003), *op. cit.*, p. 78.

¹⁰³ See Bowman, "Tying Arrangements and the Leverage Problem", Yale L. J. 19 (1957), noting that "the use of a tie-in sale as a counting device is consistent with the facts of large number of tying cases" (p. 24).

Dynamic tying in particular allows a firm with monopoly power to meter consumers' intensity of use.¹⁰⁴ Suppose that one user of a copier makes 5.000 copies per month, while another user makes 25.000 copies per month. It would be difficult for a company selling only copiers to price its machines in such a way that it would extract more revenues from the intensive user.¹⁰⁵ But, if the supplier of the copier could bundle the purchase of special ink to the purchase of its machine, and if he can price the supplies so as to realise a supra-normal profit margin on them, he would extract additional profits from the intensive user. In this way, the sale of supplies for the copier serves as a substitute for placing a meter on the machine itself.

There are some noteworthy implications within this example. First, it is important to assess whether the metering firm is not in the position to monitor directly high-intensive customers by asking them a higher fee or by placing a counter on the copier. Bundling is only an option when direct monitoring is costly. Second, metering is only a possible explanation in the case of complementary products. Third, although economists generally view metering as a benign practice, the practice's long-term effects should not be underestimated.

In the context of aftermarkets, for instance, metering may result in a direct demise of independent service providers and thereby eliminate a previously competitive complements market.¹⁰⁶ As a result, only copier companies would service their own brand of copier. This would affect the ability of new firms to enter the copier market. A new entrant to the copier market would have to incur all of the costs of designing, manufacturing and selling copiers, but would also have to set up an entire servicing network. This would clearly create high entry barriers to the copier market.¹⁰⁷

3.4.3. General observations

At this point, some general observations with regards to price discrimination can be made. First, bundling can only play a meaningful role if a firm cannot engage in first-degree discrimination. For one, when selling to individual consumers, first-degree price discrimination is not a feasible strategy. On the other hand, the situation where price and quantities are determined by bilateral negotiations (e.g. large firms, industrial goods) provides a means to price discriminate between individual buyers. Suppose a

¹⁰⁴ See Carlton and Perloff, *op. cit.*, pp. 316-318; and, Scherer and Ross, *op. cit.*, pp. 565-566.

¹⁰⁵ See Bowman, *op. cit.*, p. 23. For other examples, see Bork, *op. cit.*, pp. 376-377.

¹⁰⁶ See Nalebuff (2003), *op. cit.*, pp. 75-76.

¹⁰⁷ It should be noted that entry barriers increase the potential ability for a firm to unilaterally raise prices, but it may also facilitate a collusive outcome.

firm selling its output through independent retailers. In that case, it could be argued that the firm should offer all components individually and leave the possible packaging to the retailers, which have possibly better information about final demand. Therefore, bundling as a means of price discrimination should play no role.

Second, the literature offers no general results when bundling increases or reduces total welfare. Adams and Yellen do not derive general conditions under which pure bundling increases either the profit or social welfare of the firm. They only state that a "prohibition of bundling without more might make society worse off" and that "the deadweight losses associated with bundling might also exceed the corresponding loss associated with simple monopoly pricing."¹⁰⁸ Scherer and Ross stress that sellers clearly gain at the expense of buyers in case of bundling, but the sum of producer and consumer surplus may either rise or fall, depending upon the particular facts of the case.¹⁰⁹

There also is little empirical work on the usefulness of bundling for price discrimination. To mention one recent contribution, Crawford shows in a study on the US cable television market that demand becomes more elastic the larger the bundle.¹¹⁰ With these meagre results, it is difficult to evaluate the welfare effects. The key of price discrimination is that it provides the monopolist with an incentive to set prices at a level which allows more consumers to be supplied. This means that not being able to price discriminate could result in the exclusion of some consumers. To the extent that bundling leads to more consumers purchasing the bundling or bundled good, it is likely to increase social welfare.

¹⁰⁸ See Adams and Yellen, *op. cit.*, p. 495.

¹⁰⁹ See Scherer and Ross, *op. cit.*, p. 567.

¹¹⁰ See Crawford, *The Discriminatory Incentives to Bundle: The Case of Cable Television* (University of Arizona paper, 2001). This paper tests the theory that bundling may reduce consumer heterogeneity. The results provide support for the theory and suggest that bundling a top-15 cable network yields an average heterogeneity reduction equal to a 4.0 % increase in firm profits, but also a reduction of 3.3 % in consumer surplus. See also Leslie, "Price Discrimination in Broadway Theatre", *Rand J. Econ.* 520 (2004). Using data from a Broadway, Leslie suggests that price discrimination improves the firms profit by around 5.0 %, while the difference for aggregate consumer welfare is negligible.

3.5. Interim conclusions on efficiencies

The preceding discussion makes clear that bundling may lead to important efficiency benefits. However, this does not imply that bundling *generally* leads to *large* efficiencies. From an economic perspective, it would be unhealthy antitrust policy to draw strong conclusions from the fact that bundling may be often beneficial for consumers.¹¹¹ When companies claim efficiencies, it is important to carefully scrutinise their arguments because they may be unwarranted.

First, the alleged efficiencies may be irrelevant because bundling is not needed to achieve them. As discussed above, for instance, there is no reason why products that are jointly produced should necessarily be sold together in all circumstances.

Second, it is salutary to adopt an *ex ante* perspective when scrutinising efficiency claims.¹¹² When legally challenged, firms often take the view that unbundling is too costly. Economic wisdom supports the dismissal of this argument. It is necessary to examine whether *ex ante* there were efficiencies to be achieved by bundling. If there were no *ex ante* bundling reasons, it would create perverse incentives to allow a bundling firm to justify an anti-competitive practice because *ex post* unbundling would be too costly.

¹¹¹ This flaw is reinforced by the fact some commentators tend to selectively focus on some examples that seem support their ideas on efficiencies. For such an arguably misguided approach, see Ahlborn, Evans and Padilla, *op. cit.*, pp. 43-44.

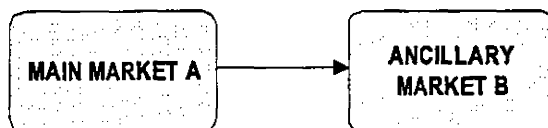
¹¹² See Kühn, Stillman and Caffarra, *op. cit.*, p. 106; and, Caffarra, "Bundling Functionalities into Products: Technical Improvement or Anti-Competitive Bundling?", seminar, Brussels, 19 May 2004.

4. Discussion of the strategic reasons

4.1. Introductory remarks

The preceding sections show that bundling may be used for benign purposes. Economists have also established that bundling may have strategic reasons.¹¹³ The original and essential concern is *the theory of leveraging*.¹¹⁴ The debate over the ability of firms to use bundling in order to leverage their monopoly power from one market to another has continued throughout the history of antitrust economics.

Very broadly speaking, antitrust cases regarding bundling tend to follow a recurring pattern. The main market for A is dominated by a firm, and an ancillary market for B is also relevant to the examination. This pattern is illustrated by the following figure:



In my view, the literature can be divided into two broad categories: leveraging *in the short term* and *in the long term*.¹¹⁵ In the short term, a firm with market power may engage in bundling in order to directly extend its market power from the main market to the market for B. In the long term, a company may attempt to raise entry barriers in market for B in order (1) to achieve or strengthen a market position in that market, or (2) to protect its original market power in the main market A. The latter long-term mechanism is also known as 'defensive leveraging'.¹¹⁶

¹¹³ This chapter focuses on the leveraging theory. It does not discuss other strategic reasons mentioned in the literature such as evasion of price controls, facilitating tacit collusion or obscuring prices. For details on those theories, see Carlton and Perloff, *op. cit.*, pp. 304-305; and, Viscusi, Vernon and Harrington, *op. cit.*, p. 257.

¹¹⁴ Most of these commentators suggest a *per se* ban for bundling. For instance, see Turner, "The Validity of Tying Arrangements under the Antitrust Laws", *Harv. L. Rev.* 50 (1958).

¹¹⁵ It should be noted that the literature does not explicitly make this distinction, although some authors distinguish between 'leveraging' and 'defensive leveraging.' Most economists appear to distinguish between 'leveraging' and 'foreclosing' or 'exclusionary effects.' Arguably, their analytical flaw is that they confuse the mechanism (*i.e.* leveraging in the short and long term) and the potential negative effects that leveraging in the long term may have (*i.e.* foreclosure or exclusion due to creating entry barriers). For instance, see Bishop and Walker, *The Economics of EC Competition Law* (Oxford, 2002), pp. 25-27. By contrast, Tirole takes a completely different position. He argues that "[i]t is difficult to think of reasons that tying should be considered a separate offense [...] Competition policy should therefore analyze tying cases through the more general lens of a predation test." See Tirole (2005), *op. cit.*, p. 25. Tirole's suggestion has merit; leveraging in the long term resembles a predation scheme. However, I respectfully reject his approach as bundling offers, unlike predatory pricing, a monopolist the ability to engage in no-cost predation, and there is, contrary to the predation, no need to establish recoupment.

¹¹⁶ See Carlton and Waldman, "The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries", *Rand J. Econ.* 194 (2002).

4.2. Leveraging in the short term

4.2.1. Monopoly profits in *both* markets A and B

The main negative attitude in the literature has its origin in the intuitive theory of leveraging.¹¹⁷ According to this theory, bundling arrangements serve as a device for "monopolistic exploitation."¹¹⁸ Supposing A and B are bundled together, the main concern is that a multi-product firm with a monopoly in the market for A could extend some market power inhering in A to market B, so that it could obtain two monopolies. The idea is that a monopolist's use of its power in its own market to control activities in market B typically represents an attempt to spread its power to the other market. Bundling would then permit the monopolist to transfer additional wealth from consumers beyond the amount that it could secure from simply setting a monopoly price for A.¹¹⁹ In other words, the monopolist obtains a monopoly profit twice because there are two dead-weight losses. Therefore, antitrust policy has been to look for the evidence of raising prices by a dominant company in the market for B.

4.2.2. The Chicago critique

While the simplicity of the leveraging theory resulted in its use for a long period, Chicagoans proclaimed the "death of [the] leverage theory" during the 1970s and 1980s.¹²⁰ They assert that the leveraging hypothesis, while appealing on the surface, makes no economic sense. "The lever is not," as Hovenkamp writes, "a plausible way to increase monopoly profits."¹²¹

The Chicago criticism is based on the 'one-monopoly profit theorem.'¹²² The first attack came from the founding father of the Chicago tradition, Director.¹²³ He argues that, even if a firm is a monopolist in the bundling good market, it cannot create a second monopoly profit elsewhere. Assuming that A and B are complements, he reasons that the bundling firm might, at most, possess a monopoly over the A-B

¹¹⁷ See Nalebuff (2003), *op. cit.*, pp. 19-20; Tirole (2001), *op. cit.*, pp. 333-335; Van den Bergh and Camesasca, *op. cit.*, p. 278; Slade, *op. cit.*, pp. 2-3; Viscusi, Vernon and Harrington, *op. cit.*, p. 248. It is noteworthy that neither Carlton and Perloff nor Scherer and Ross mention the leveraging theory.

¹¹⁸ See *Report of the Attorney General's National Committee to Study the Antitrust Law* (1955), p. 145.

¹¹⁹ See Van den Bergh and Camesasca, *op. cit.*, p. 278.

¹²⁰ See Kaplow, "Extension of Monopoly Power Through Leverage", *Col. L. Rev.* 515 (1985), writing that "[t]here are a number of deficiencies in the analysis of recent commentators who have attempted to proclaim the death of leverage theory" (p. 15).

¹²¹ See Hovenkamp, *Federal Antitrust Policy – The Law of Competition and its Practice* (St. Paul, 1994), p. 371.

¹²² See Ahlborn, Evans and Padilla, *op. cit.*, p. 44.

¹²³ See Director and Levi, "The Law and the Future: Trade Regulation", *North. U. L. Rev.* 281 (1956), pp. 290-292.

package. The total amount of restriction that the monopolist will profitably be able to impose is *fixed* regardless of the practice is used. Otherwise put, for a given amount of power, indirect exploitation can cause no more damage than direct exploitation. Director's criticism is followed by Posner and Bork. Posner elegantly writes the following:

A fatal weakness of the leverage theory is its inability to explain *why* a firm with a monopoly of one product would want to monopolize complementary products as well. It may seem obvious that two monopolies are better than one, but since the products by hypothesis used in conjunction with one another [...] it is not obvious at all. If the price of the tied product is higher than the purchaser would have had to pay in the open market, the difference will represent an increase in the price of the final product or service to him, and he will demand less of it, and will, therefore, buy less of the tying product.¹²⁴

Bork calls it the "fallacy of double counting."¹²⁵ He notes that a "tying arrangement, whatever else it may accomplish, is obviously not a means for gaining two monopoly profits from a single monopoly."¹²⁶ Some Chicagoans argue that neither independent nor complementary goods allow for leveraging.¹²⁷

In my view, the Chicago critique is cogently appealing. Consider the case of complementary goods A and B, used in fixed proportions. Suppose that A is priced at a profit-maximising monopoly price of € 200 and B is priced competitively at € 30. In order to achieve a double monopoly profit, the sale of A must be made conditional upon the purchase of B and the price of B must be increased by, for instance, € 50. As a result, consumers will value B less, and therefore will perceive the package price as being too high. They are not willing to pay € 250 for the A-B bundle. This means the bundling firm must reduce its package price to maximise its profits. Any attempt to charge monopoly prices for B serves to increase the price of the A-B bundle as a whole. Pricing in the market for B is thus disciplined because increasing the bundle's price reduces the demand for A.

4.2.3. Critical examination of the Chicago predictions

It should be noted that the result of the Chicago theory is hardly surprising. If A and B are used in fixed proportions, they can be effectively considered as one product. Although a profound attack, the sweeping Chicago predictions can be criticised. The Chicago argument that leveraging is not possible is based on restrictive assumptions.

¹²⁴ See Posner, *Antitrust Law: An Economic Perspective* (Chicago, 1976), p. 173 (emphasis author).

¹²⁵ See Bork, *op. cit.*, p. 140.

¹²⁶ See Bork, *op. cit.*, p. 373.

¹²⁷ See Hylton, *Antitrust Law* (Cambridge MA, 2003), p. 280.

Arguably, these assumptions are often unrealistic. The first assumption is that the bundled good market is competitive.¹²⁸ This position ignores a number of obvious realities.¹²⁹ For instance, the position assumes that there are low or no entry barriers, that no substantial risk rises from the fact that the new entrant is inexperienced, and that there is no greater risk of failure when the two new ventures must be launched. The second assumption is that A and B are used in *fixed* proportions. In many situations, like dynamic tying, this is not the case.¹³⁰ Another crucial assumption is that consumers must be perfectly informed.¹³¹ If they are not able to calculate the price of the A-B package, there is the risk that they are exploited. When these assumptions are relaxed, bundling may have strategic motivations, which may lead to welfare reductions.¹³²

In sum, the Chicago critique makes clear, though perhaps very strongly worded, that the leveraging motivation needs a more profound analysis.

4.3. Leveraging in the long term

Although the Chicago theorem is persuasive in a static context, its major limitation is that it does not take into account dynamic considerations. This observation was introduced in 1958 by Kaplow.¹³³ A firm may be willing to incur costs from a static perspective in order to achieve greater overall profits after taking into account long-run effects. Referring to the one-monopoly profit theorem, Kaplow stresses that firms may be willing to accept some losses in the short term, in particular when they can be offset with some efficiency gains, in order to have advantages in the long run.¹³⁴

Recently, post-Chicago research developed a number of models in order to understand the competitive implications of bundling when the structure of the bundled market is oligopolistic, rather than perfectly competitive. These theories have a long-term perspective and focus on exclusionary effects. They can

¹²⁸ See Kaplow, *op. cit.*, describing this the "tendency to assume perfect markets" (p. 536).

¹²⁹ See Porter, "Strategic Interactions: Some Lessons from Industry Histories for Theory and Antitrust Policy", in: Salop *et al.*, *Strategy, Predation and Antitrust Analysis* (FTC, 1981), making a similar point about imperfections in the capital market (p. 466).

¹³⁰ See Ahlborn, Evans and Padilla, *op. cit.*, p. 45. For instance, see also Slade, *op. cit.*, arguing that leveraging by a single monopolist is generically profitable regardless the structure of demand and even without excluding competitors completely from the bundled market. Note that Slade's study excludes pure bundling in fixed proportions and does not assess the welfare implications, however.

¹³¹ See Van den Bergh and Camesasca, *op. cit.*, p. 276.

¹³² See Lofaro and Ridyard, "Beyond Bork: New Economic Theories of Exclusion in Merger Cases", ECLR 151 (2002), p. 151.

¹³³ See Kaplow, *op. cit.*, writing that "[i]t is hard to understand why so much of the criticism of leverage theory operates primarily in a static framework" (p. 530).

¹³⁴ See Kaplow, *op. cit.*, pp. 526-527.

be grouped under two headings depending on the market they are focusing on: (1) bundling may lead to entry deterrence in the market for B; and (2) bundling may affect future competitiveness of rivals in the market for A.

4.3.1. Entry deterrence in market B

4.3.1.1. Bundling increases the stakes of competition: Whinston

A first attempt to identify the possible entry deterring effects of bundling was undertaken by Whinston.¹³⁵ In a simple, analytical framework, Whinston shows that bundling is a commitment to sell in the future only in a bundled form. Such a commitment may deter entry in the market for B. Suppose that A and B are independent goods and that there is a monopolistic market for A and an oligopolistic market for B. By bundling these goods, the monopolist raises the stakes of the competition game in the bundled good market because losing sales in market B also implies losing sales in market A. In turn, this signals to competitors in market B that pricing will be aggressive. Fiercer competition in market B will decrease rivals' profits and may force them to exit market B.

Three important conditions need to be satisfied in order to achieve the welfare-reducing effects that Whinston predicted.¹³⁶ First, the bundling firm must enjoy market power in the market for A.¹³⁷ Without such power, the undertaking does not have the bargaining leverage required to impose a bundle on its customers. Second, the bundling firm must be able to commit itself to the bundling strategy. This means that the firm must be able to credibly threaten to refuse supplying customers unless they comply with the bundle.¹³⁸ If an undertaking is unable to pre-commit itself, re-entry may be expected to take place when the bundling firm tries to increase prices in the market for B. Credibility depends on genuine commitment to bundle. This is difficult for undertakings because there is always a tendency, in order to keep sales up in the market for A, to relax the bundle once sales are lost in the market for B. Technical bundling is considered to be a credible commitment.¹³⁹ Third, bundling must result in the complete exit of rivals from the bundled good market.

¹³⁵ See Whinston, *Tying, Foreclosure and Exclusions* (NBER paper, 1989). A variant of Whinston's approach was submitted by Seidmann. He argues that bundling as a leveraging device is not foreclosing the bundled market, but facilitating evasion of competition for the bundled good sales and thereby getting supra-competitive prices. See Seidmann, "Bundling as a Facilitating Device: a Reinterpretation of the Leverage Theory", *Economica* 491 (1991).

¹³⁶ See also Lofaro and Ridyard, *op. cit.*, pp. 153-154.

¹³⁷ See Whinston (1989), *op. cit.*, pp. 6-8.

¹³⁸ See Lofaro and Ridyard, *op. cit.*, pp. 151-152.

¹³⁹ See Motta, *op. cit.*, p. 464.

Focusing on the long-term effects, Whinston offers a convincing explanation for leveraging by bundling, although his model has some limitations. It should be recognised that the exclusion of the rival is not necessarily profitable for the monopolist under all circumstances. If a monopolist sells a bundle, it may well be that some consumers who have bought A in combination with the competing B will not even buy the A-B bundle supplied by the monopolist. This could happen when consumers do not value A very highly and prefer the rival's product B.¹⁴⁰

Furthermore, Whinston's model does not take, by assumption, into account efficiency gains. When making an overall assessment, the possible efficiency gains of bundling must be weighed against the welfare-reducing foreclosure effects of the arrangement. The final limitation of Whinston's model is that it holds position depending on the interrelationship between the demands for goods A and B. If A and B were complements and sold in fixed proportions, the monopolist's incentive to bundle these goods would be reduced.¹⁴¹ This is because the one-monopoly profit theorem holds. However, Whinston notes two instances where a monopolist may successfully exclude competitors in a complementary market.¹⁴² Bundling complementary goods may make economic sense when: (1) the monopolised good is no longer essential for all uses of other components; and, (2) there exists only an inferior alternative to A.

One strand of economic analysis doubts whether the work of Whinston may form a strong basis for antitrust policy. On an analytical level, the theory that bundling may raise barriers to entry is generally susceptible to the same criticism that can be raised against all entry barrier arguments. Demsetz, for example, stresses the fact that while something may be an entry barrier, this says nothing about whether it is socially harmful or beneficial.¹⁴³ On a doctrinal level, Ahlborn, Evans and Padilla criticise the theory for being fragile because minor changes in the assumptions could result in a different outcome.¹⁴⁴ For instance, the assumptions of pre-commitment and the exit of rivals are strong. If they are not met, the monopolist's strategy may fail and even increase the intensity of price competition instead.

¹⁴⁰ See Motta, *op. cit.*, p. 465.

¹⁴¹ See Whinston (1989), *op. cit.*, pp. 21-41.

¹⁴² See Whinston (1989), *op. cit.*, pp. 30-41.

¹⁴³ See Demsetz, "Barriers to Entry", *Am. Ec. Rev.* 47 (1982).

¹⁴⁴ See Ahlborn, Evans and Padilla, *op. cit.*, p. 48.

4.3.1.2. Bundling deprives entrants of adequate scale: Nalebuff

In a recent article, Nalebuff develops a variant of the Whinston model that aims to relax, in the case of complementary goods, the conditions under which bundling may be welfare-detrimental.¹⁴⁵ Looking at the case for bundling arrangements in an oligopolistic environment, Nalebuff's contribution constructs a model for a multi-product monopolist holding perfectly complementary goods A and B. Nalebuff shows that bundling makes it harder for rivals with only one of these goods to enter the market because it allows an incumbent to deprive the entrant of an adequate scale. Although Nalebuff recognises that price discrimination provides a reason to bundle, he argues that the gains are small compared with the those from entry-deterrent effect.¹⁴⁶ Referring to the latter effect, Nalebuff notes that "[i]t is in this role that bundling truly shines."¹⁴⁷

Let us consider a company with market power in complements A and B. The monopolist sells A and B as a bundle and the entrant sells only B. Under these circumstances, the monopolist attracts those customers with a high valuation for the bundle and charges a high price for them. The entrant sells to those consumers of B who have a low valuation for good A and charges them a low price. As a result, the new entrants' profit is reduced, which may result in foreclosure of market B. In contrast to Whinston's theory, credibility is no issue in the Nalebuff model because even when entry is not foreclosed, the price for B and the monopolist's profits are higher with a bundle than without.

Although the Nalebuff model gives useful insight into how bundling may function, it has limited importance for the present discussion. Its major limitation is that it assumes monopoly power in both markets, which is often not the case.

4.3.1.3. Bundling affects R&D incentives: Choi

Another recent theoretical breakthrough is accredited to Choi.¹⁴⁸ Considering independent goods, his work analyses the effect of bundling arrangements on R&D incentives. He shows that bundling can be a

¹⁴⁵ See Nalebuff, "Bundling as an Entry Barrier", *Quart. J. Bus. Econ.* 159 (2004). See also Carbajo, De Meza and Seidman, "A Strategic Motivation for Commodity Bundling", *J. Ind. Econ.* 283 (1999). In their analysis, product A is produced by monopolist while B, an independent product, is produced by the monopolist of A and another firm. In the absence of bundling, normal competition forces the price of B down to marginal cost, while bundling by the monopolist introduces the equivalent of product differentiation into B. The result is that bundling allows the monopolist to capture some profits in market B and can also cause a corresponding reduction in social welfare.

¹⁴⁶ See Nalebuff, *op. cit.*, p. 160.

¹⁴⁷ See Nalebuff (2004), *op. cit.*, p. 183.

¹⁴⁸ See Choi, *Tying and Innovation: a Dynamic Analysis of Tying Arrangements* (Columbia University paper, 1998).

profitable strategy via its long-term effects on innovation, even in the absence of rivals' exit.¹⁴⁹ The simple model by Choi gives credence to Kaplow's contention that the Chicago criticism is beside the point because it attempts to disprove the existence of long-term leveraging effects by using static analysis.¹⁵⁰ He basically extends Whinston's theory by allowing for the possibility of R&D investments that precede any price game.

The Choi model does not consider whether the increased market share in market B due to bundling is a profitable strategy in itself. Choi sees bundling as a means through which a firm can commit to more aggressive R&D investment in market B. Considering innovation in the analysis of bundling, he describes two effects. On the one hand, bundling increases the R&D incentives of the bundling firm in market B because the undertaking can spread out its R&D costs over a larger number of units. On the other hand, the bundling strategy takes sales away from the bundling firm's competitors in the bundled good market. This market effect then translates into reduced R&D incentives for competing firms.¹⁵¹ In sum, bundling is a profitable strategy if the gains, via an increased share of dynamic rents in market B, exceed the losses that result from intensified price competition as Chicagoans predict.

Likewise, Choi, together now with Stefanadis, considers the innovation effects of bundling arrangements in the case of complementary goods.¹⁵² In their paper, a firm has a monopoly in the components A and B and faces an entrant in each market. Each potential entrant can enter the market for one component if it has a successful innovation. If the monopolist commits to bundling, entry into one component market is possible only if both innovations are simultaneously successful.

The explanation is simple. If only one entrant obtains the innovation, there is no demand for its good because A and B are complements. Bundling makes the prospect of recouping an investment less certain, which will reduce the rivals' incentive for innovation. This means that it will be unlikely that innovations by competing component producers will out-compete the bundling monopolist. In conclusion, the models of Choi clarify that the loss of rivals in the competitive market may change the incentive for innovation, thus potentially harming consumers.

¹⁴⁹ See Choi, *op. cit.*, p. 3.

¹⁵⁰ See Kaplow, *op. cit.*, p. 526. See also Choi, *op. cit.*, pp. 6-9.

¹⁵¹ This result is consistent with the empirical evidence in Vanderwerf's paper showing that most innovations in electronic wire preparation equipment have come from firms who also produce parts effectively bundled to the equipment. See Vanderwerf, "Product Tying and Innovation in US Wire Preparation Equipment", *Research Policy* 83 (1990).

¹⁵² See Choi and Stefanadis, "Tying, Investment and the Dynamic Leverage Theory", *Rand J. Econ* 52 (2001).

4.3.2. Future competitiveness of rivals in market A: Carlton and Waldman

Bundling may also affect future competitiveness of rivals in market A. The use of bundling to preserve monopoly in the bundling market seems to be a prevalent strategy by firms in industries subject to rapid technological change such as IBM and Microsoft.¹⁵³

The most important paper on this issue is presented by Carlton and Waldman. Their work is related to Whinston's in that they also focus on bundling and entry deterrence. They do not, however, concentrate on the monopolist's ability to use bundling so as to increase current profitability in market B. Rather, they provide a dynamic model explaining that a monopolist may leverage through bundling in order to deter future entry into the monopoly market because of the effect on overall profitability.¹⁵⁴

The Carlton and Waldman model is based on the idea that complements to current products may develop into substitute products of current or future products of the monopolist. By reducing the market presence of the current complements, the monopolist could prevent the emergence of serious competitive threats in the future. Let us consider a two-period setting in which there is a monopolist of a primary product in the first period. In the first period, both the monopolist and an alternative producer can produce a complementary product whose use requires the primary product. In the second period, both firms can again produce the complementary product, but, in addition, the alternative producer can also enter the primary market. Carlton and Waldman cite as an example a computer (primary good) and a printer (complementary good).

Their model shows that bundling can be profitable for the monopolist in such a setting, supposing that the alternative producer faces entry costs for both the primary and complementary markets or that there are network effects for the complementary good rather than costs. By bundling, the monopolist stops the alternative producer from selling any complementary units in the first period, which reduces the alternative producer's chances of returning to the complementary market. In turn, this reduction can stop the alternative producer from entering either the primary or complementary markets in the second period, allowing the monopolist to preserve its primary market monopoly. As for antitrust policy, the key factor is establishing whether bundling shifts demand away from rivals with potential future gains is

¹⁵³ See Carlton and Waldman, "How Economics Can Improve Antitrust Doctrine towards Tie-In Sales", *Comp. Pol'y Int'l* 27 (2005), pp. 31-32.

¹⁵⁴ See Carlton and Waldman (2002), *op. cit.*, noting that "strategic use of tying to deter the entry of efficient firms that raises the most interesting and difficult public policy issues" (p. 2).

possible in relation to a particular product market. This means that it must be assessed whether there are plausible mechanisms that generate a link from current market share to future advantages.

However, there are some limitations to the Waldman and Carlton model. Although recognising the conceptual simplicity of the Waldman and Carlton model, Ahlborn, Evans and Padilla stress that its validity depends on strong assumptions.¹⁵⁵ First, the theory requires that entry into the bundled good market is very costly. Second, the model does not apply when consumers have a demand for only the monopoly good. Another shortcoming is that it is not clear if bundling is detrimental to the ultimate consumers. After all, the model predicts a price drop at least for buyers purchasing the bundle. The model thus involves an inherently difficult trade-off between price drops and the likely negative effects of entry deterrence.

In sum, these sections clarify that leveraging in the long term is ordinarily not possible in the absence of significant foreclosure in market B.

5. Special topics

Two special topics with regards to bundling merit a separate evaluation. These are: (1) bundling in a network environment and (2) the remedies after anti-competitive impact has been established.

5.1. Bundling and network effects

The theory of network effects means that there is a greater benefit to a good or service when the number of users increases.¹⁵⁶ For instance, as the number of users of a mobile network increases, the membership of this network becomes more valuable because any user can call more destinations and be called by more users. Bundling may be used to broaden the scope of an existing network because it may stimulate product sales via a network externality effect.¹⁵⁷ Compared to the ample literature on the general effects of bundling, there are only a few references to bundling and network effects in the literature.

¹⁵⁵ See Ahlborn, Evans and Padilla, *op. cit.*, p. 50. For similar review, see Bishop, "A Note on the Economics of the Microsoft Decision", *Competition Law Insight*, May 2004, p. 14.

¹⁵⁶ For a general discussion, see Katz and Shapiro, "Network Externalities, Competition and Compatibility", *Am. Econ. Rev.* 424 (1985); and, Liebowitz and Margolis, "Network Effects and Externalities", in: Newman (ed.), *The New Palgrave Dictionary of Economics and Law* (London, 1998).

¹⁵⁷ See Nalebuff (2003), *op. cit.*, pp. 53-56. In relation to the decision in *Microsoft*, Ehlermann and Ratiiff, "Mario Monti's Legacy for Competition Policy in Article 82", *Comp. Pol'y Int'l* 79 (2005), p. 85.

For instance, Nalebuff provides an interesting example of bundling and network effects in the mobile sector.¹⁵⁸ He shows that bundling comes into play when firms offer discounted access to the bundle of the users on their network. Let us consider four mobile phone operators with 25% market share and a potential entrant. The network operators charge each other a common termination fee across the network. Consumers typically do not care which network is used by the person they call. The incumbent operators may change this situation by introducing a variety bundle in which calls within the same network will not be charged a termination fee. As a result, consumer prices for calls on the same network will be lower than calls outside the network. Networks with a large number of users have an advantage over small entrants. The idea is that the more people one can call at lower prices, the larger the number of people will be connected to the network. A new entrant is not in the position to lower its prices for calls on the same network because most of its calls will be outside its network. In other words, the bundle extends the network effect for the four incumbent networks.

Bundling by pricing may therefore deny the new entrant network effects along with denying the entrant sufficient scale to become economically viable. Therefore, the incumbents may create barriers to enter the market. In a recent article, Dolmans and Graf, two lawyers, summarise Nalebuff's concern very well:

Markets characterised by network effects may be particularly vulnerable to tying. In such markets, the number of customers who acquire the product influences future demand for that product. The wider the product's distribution, the more demand will there be for the product. In such cases, a tie will have an impact *beyond* the tied customer because the increased distribution share resulting from the tie will also impact on future demand for the tied product.¹⁵⁹

Notably, Nalebuff's argument could also be reversed. Bundling can be used to deny network effects to rivals. The general idea here is that bundling is used as a way to deny rivals access to some large fraction of the market. As a result, they are denied a minimum efficient scale. For instance, bundling as a metering device may have this result. As discussed above, metering the use of photocopying machines may result in the disappearance of spare parts or of the servicing market. In turn, this makes entry in the copy machine business harder because a firm wanting to enter would also have to build up a service network.

¹⁵⁸ See Nalebuff (2003), *op. cit.*, p. 54. Another example given by Nalebuff is the bundled upgrading of Word and the other application programs of Windows Office.

¹⁵⁹ See Dolmans and Graf, "Analysis of Tying under 82 EC: The European Commission's Microsoft Decision in Perspective", W.Comp. 225 (2004), p. 234 (emphasis added).

The literature suggests furthermore that defensive leveraging is particularly likely in industries characterised by network effects and substantial innovation where product lifetimes are short.¹⁶⁰ Typically, it is hard to find a credible link between bundling *today* and competition *tomorrow*. However, network effects are a powerful mechanism by which leveraging strategies from one period can have permanent effects in the future.

This can be explained by the Windows-IE bundle offered by Microsoft.¹⁶¹ The analysis should focus on the incentives of application developers. Essentially, by bundling the operating system with its own Internet browser, Microsoft can generate a sunk cost effect on the consumer. The consumer will only purchase the software supplied by the competition, in addition to the bundled product, if to him, the price is lower than the value of the quality differential. In a world without bundling, the consumer would be willing to pay the marginal cost of production plus the perceived quality differential to competitors. This means that the price that can be extracted by competitors is lower, and thus the sales quantity is reduced.

As a consequence, the proportion of users for the rival software is reduced, and this leads to a situation where applications software offered in the future is more likely to be developed for the Windows system. This means that relatively small disadvantages to rivals generated by bundling can have very large effects on excluding competition.

5.2. Bundling and remedies

If bundling has an anti-competitive impact, it is important to look for remedies that would solve the antitrust problem.¹⁶² These remedies may be structural or behavioural.¹⁶³ The key requirement is that remedies are adequate to deal with the adverse effects identified in the most proportionate way.

The economic literature provides useful insight into the effects of a particular remedy in the event of bundling. The following remedies are discussed: (1) blocking a merger or requesting divestiture; (2) refraining from bundling; (3) commitment to limit the discount of the bundle; and, (4) participation of rivals in the bundle.

¹⁶⁰ See Kühn, Stillman, Caffarra, *op. cit.*, pp. 98-101.

¹⁶¹ This example is borrowed from Kühn, Stillman, Caffarra, *op. cit.*, pp. 98-103.

¹⁶² See Nalebuff (2003), *op. cit.*, pp. 65-69.

¹⁶³ For details on structural remedies, see Shelanski and Sidak, "Antitrust Divestiture in Network Industries", U. Chi. L. Rev. 1 (2001).

5.2.1 Blocking a merger or requesting divestiture

A structural approach to bundling in the form of blocking a merger or requesting a divestiture has as its major advantage that it is a simple and direct remedy. For one, it can be easily imposed, and monitoring is not required. On the other hand, it is often too broad. First, it may make consumers worse off because they have no access to product improvements or distribution efficiencies. Second, such a remedy unnecessarily sacrifices efficiencies because anti-competitive bundling could also be addressed under antitrust laws. In this respect, Heiner duly notes that "blocking a merger because the merged firm may engage in unlawful tying is like banning the sale of Ferrari cars because some owners will not respect the speed limit."¹⁶⁴

5.2.2. Refraining from bundling

A simple behavioural remedy is that a firm commits itself not to bundle. A firm can do that by having to provide an itemised breakdown of the package price, giving a price for each component in the package. The advantage of this commitment is that it is quite simple to implement. The firm will violate this commitment when the component elements are not itemised or add up to more than the package price.

The major disadvantage of this remedy is that it makes some consumers worse off, particularly in the case of mixed bundling. Another disadvantage is that it may be hard to monitor. The individual prices of the components should not add up to more than the bundle price. Two observations are possible in this context.

First, as prices are generally negotiated, buyers alleging an illegal bundle must demonstrate that the supplier was trying to bundle two products. Second, another reason why it may be difficult to enforce the commitment is that the incentive to bundle might come from the buyer rather than from the seller. Buyers are generally tempted to receive a larger discount. Therefore, they will agree to buy both goods A and B if they are better off.

¹⁶⁴ See OECD, *Portfolio Effects in Conglomerate Mergers* (Paris, 2002), p. 237.

5.2.3. Commitment to limit the discount of the bundle

A variant of the commitment to refrain from bundling is that the company under investigation limits the extent of the bundle discount. The major advantage of this remedy is that firms may continue bundling. Because bundling may function as an entry deterring device, there may be, however, a need to reduce the adverse effects of such practice. The greater the discount offered, the more difficult it becomes for a entrant to compete.

The obvious disadvantage is that reducing the bundle discount results in a price increase for consumers. Another disadvantage is that the Commission would intervene in the undertaking's independent pricing policy.

5.2.4. Participation of rivals in the bundle

A final solution is to allow bundling but to require that competing component suppliers participate in the bundle. For instance, this approach may work well in the case of a ski pass ticket for a number of mountains or an unlimited cinema pass including many cinemas.¹⁶⁵ The advantage is that it provides consumers the efficiency gains of the variety bundle without causing the exclusion effect to firms left out of the bundle. The major disadvantage is that it may result in practical issues like access and monitoring.

A variant of participation in the bundle is a must-carry obligation. Under this remedy, the accused company is forced to carry a component offered by a rival. This remedy may be useful in the case of bundling and network effects because it helps increase the availability of rival products and thus restore some of the level playing field. The disadvantage is that it may incur costs on the bundling firm.

¹⁶⁵ See Nalebuff (2003), *op. cit.*, pp. 65-69.

6. Discussion of the legal implications

6.1. The doctrinal debate

There has been persistent controversy in legal-economic literature about the legal standard for bundling. Drafting a legal framework on the basis of the economic literature discussed in the preceding sections is not an easy undertaking. There have been marked differences of opinion and fierce debates concerning the scope and rationale of such standard.

The doctrinal debate can be summarily handled as follows: one string of commentators submits bundling arrangements to a *per se* (modified) rule of legality, while other scholars favour a *per se* (modified) rule of illegality.

6.1.1. The *per se* legal rule

Predominantly in the US, there is an important current of opinion that advocates a very lenient approach towards bundling. This recognition is introduced by Bowman in 1957.¹⁶⁶ Bowman is skeptical whether monopoly power could be leveraged because in most cases, any increase in the profits realised in market B is offset by the losses in market A. He believes that the pro-competitive effects normally account for the use of bundling practices. Likewise, Bork and Posner advance a *per se* rule of legality for bundling.¹⁶⁷

One of the first to analyse bundling in Europe was Jaeger.¹⁶⁸ He sees bundling as bolting together the main obligation of a contract with a supplementary obligation. His reasoning is that only in very rare cases where there is absolutely no connection between the main and supplementary obligation do we find an unlawful bundling clause. As bundling is unlikely to extend market power, Korah suggests that

¹⁶⁶ See Bowman, *op. cit.*, claiming that a *per se* ban for bundling "has been based upon an imprecise evaluation of the economic effects of tying practice in extending monopoly" (p. 34).

¹⁶⁷ See Bork, *op. cit.*, noting that "there is no viable theory of a means by which tying arrangements injure competition" (p. 381); and, Posner, *op. cit.*, suggesting that the legal ban for bundling should be "radically curtailed" (pp. 182-183). See also Carson W. Bays, "Tying Arrangements Should Be Per Se Legal", *Am. Bus. L. J.* 625 (1989).

¹⁶⁸ See Jaeger, "Illiceita dei c.d. Tying Contracts nel Trattato Istitutivo della CEE e nelle Leggi Americana Antitrust", *Riv. Dir. Ind.* 474 (1958).

firms bundle for benign objectives, like measuring royalties and quality control.¹⁶⁹ These authors suggest that bundling should be virtually always *per se* legal.

In recent days, Ahlborn, Evans and Padilla have been the main proponents of this *laissez-faire* school.¹⁷⁰ They suggest a modified *per se* legal rule for bundling on the basis that the efficiency effects of bundling are ubiquitous, while the anti-competitive effects are highly unlikely. The rare instances that antitrust intervention is required necessarily involves a delicate assessment of the parameters of the relevant economic theories. On the basis of a decision-theoretic argument, Hylton and Salinger come to the same conclusion. They argue for an antitrust approach that effectively results in a *per se* legality of bundling.¹⁷¹ Based on examples from many competitive markets, they assert that benign bundling is so prevalent that the probability of anti-competitive effects arising is very small. The legal implication of this observation is that the optimal competition policy should assume as a prior belief that bundling is not anti-competitive.

Other commentators suggest a legal standard of *per se* legality for specific forms of bundling. For instance, Sidak proposes, in his earlier work, antitrust immunity for product design decisions resulting in technical bundling.¹⁷²

6.1.2. The *per se* ban

On the other side of the spectrum, there is the hard-line position taken by some scholars who appear to treat a bundling practice as *prima facie* evidence of anti-competitive behaviour.¹⁷³

The classical articulation of this approach is found in Turner's seminal work, published in 1958.¹⁷⁴ He claims that market power in market A could be leveraged into market B. Therefore, bundling must

¹⁶⁹ See Korah and Rothnie, *Exclusive Distribution and the EEC Competition Rules* (London, 1992), p. 187. For similar view, see Zanon, "Ties in Patent Licensing Agreements", *ELRev.* 391 (1980), noting that "ties do not allow a firm to extend its monopoly, in order to reap double monopoly profits" (p. 393).

¹⁷⁰ See Ahlborn, Evans, Padilla, *op. cit.*

¹⁷¹ See Hylton and Salinger, "Tying Law and Policy: A Decision Theoretic Approach", *Antitrust L. J.* 69 (2001), noting that "a superior rule would be one of *per se* legality" (p. 20). For a similar approach, see Padilla, "A Practical Approach to Analysing Bundling and Portfolio Effects cases", 8th EU Competition Law and Policy EUI Workshop, June 2003.

¹⁷² See Sidak, "Debunking Predatory Innovation", *Col. L. Rev.* 1121 (1983).

¹⁷³ For many years, this has been the legal position in the EU. For details, see Chapter 4.

¹⁷⁴ See Turner, *op. cit.*, p. 59. For similar claims, see Nalebuff (2005), *op. cit.*, p. 53; Celnicker, "A Response to Carson W. Bays' Call for *Per Se* Legality of Tying Arrangements", *Am. Bus. L. J.* 145 (1990); Slawson, "A Stronger, Simpler Tie-In Doctrine", *Antitrust Bulletin* 671 (1980), p. 672; and, Chesterfield and Oppenheim, "Federal Antitrust Legislation: Guideposts to a Revised National Antitrust Policy", *Mich. L. Rev.* 1139 (1952), p. 1181

always be prohibited under antitrust law. The same legal response is advocated by Bauer.¹⁷⁵ He is convinced that bundling does not produce any economic benefit. A *per se* ban provides a "clear line for businessmen and courts, and will simplify the judicial application of the rule" and is "quicker, cheaper and surer for the courts to enforce, it has greater deterrent value, thereby broadening the scope of conduct that never reaches the courts."¹⁷⁶

Campbell even argues that technical bundling in software markets should be submitted to a *per se* ban.¹⁷⁷ Authors like Wollenberg and Baker argue that bundling should be subjected to the rule of reason test.¹⁷⁸ At first blush, their approach seems to be different, but a closer analysis reveals that, in fact, they advance a *per se* ban given the very restrictive conditions, if not the impossibility, of their test.

The common objection in the EU is that bundling results in the extension of market power. Distinguishing between the main and supplementary obligation of a contract, Jansen focuses on the effects of a bundling arrangement on the secondary market relating to the supplementary obligation.¹⁷⁹ He argues that bundling should *in general* be prohibited unless the tied product in itself has no value independent of the bundling product. In his standard work, Mestmäcker also emphasises the third party effects of bundling.¹⁸⁰ He concedes that bundling typically restricts competition in the bundled market by excluding third parties or by raising higher barriers, suggesting a strict approach to bundling. In a recent contribution, Eilmansberger advances that tying is one of business practices that are *in themselves* abusive because it concerns an instrument to leverage market power.¹⁸¹

6.1.3. Evaluation of both approaches

¹⁷⁵ See Bauer, *op. cit.*, noting that "tie-ins in general do not produce any economic benefits, except in certain specific situations, and may lead to other societal losses" and, therefore, claiming that "there will be no economic loss from condemning *all* tying arrangements, regardless of the seller's motivations" (p. 286).

¹⁷⁶ See Bauer, *op. cit.*, p. 286.

¹⁷⁷ See Campbell, "Fit to Be Tied: How United States v. Microsoft Incorrectly Changed the Standard for Sherman Act Tying Violations Involving Software", *Loy. L. A. Ent. L. Rev.* 583 (2002), p. 603.

¹⁷⁸ See Wollenberg, "An Economic Analysis of Tie-In Sales: Re-Examining the Leverage Theory", *Stan. L. Rev.* 737 (1987); and, Baker, "The Supreme Court and the Per Se Tying Rule: Cutting the Gordian Knot", *Vir. L. Rev.* 1235 (1980).

¹⁷⁹ See Jansen, *Die Kopplungsverträge im Recht der Wettbewerbsbeschränkungen* (Berlin, 1968), pp. 158-165.

¹⁸⁰ See Mestmäcker, *Europäisches Wettbewerbsrecht* (München, 1974), p. 189.

¹⁸¹ See Eilmansberger, "How to Distinguish Good from Bad Competition under Article 82 EC: in Search of Clearer and More Coherent Standards for Anti-Competitive Abuses", *CMLRev.* 129 (2005), pp. 143, 153-155.

In view of the literature discussed, I argue that neither approach can be a basis for sound competition policy.¹⁸²

On the one hand, competition policy should not be based on the assumption of a *per se* legality of bundling, whether absolute or modified for four reasons.

First, the blanket assertion of efficiencies due to bundling should be nuanced. For instance, as discussed before, efficiencies that are typically attributed to bundling may often be achieved without bundling. Another flaw is that the proponents of the *per se* legal test focus selectively on certain markets where efficiencies appear to be supported. Contrary to their claim, steady-fast tying of products that could be sold separately in competitive markets is no basis for the conclusion that bundling almost invariably produces consumer benefits.¹⁸³ As Kühn, Stillman and Caffarra rightly note, "[b]asing strong conclusions on casual empiricism is a dangerous exercise."¹⁸⁴

Second, bundling allegations merit careful investigation because the effects on competition can be very large. Put simply, it is doubtful that the arithmetic suggested by the Chicagoans reflects the reality of the market under all circumstances. In the long term, a dominant firm may have a clear interest to bundle the sale of products for which it is subjected to competition to the sale of a product on which it has a monopoly. It may be interested to do so, even if, in the short term, this should not allow it to ask a higher price for bundled goods together. As Waelbroeck rightly comments, bundling may "serve the purpose of foreclosing competitors and thus, *in the end*, of asking higher prices also for the tied product."¹⁸⁵

Third, it is arguable that Hylton and Salinger have wrongly applied decision theory to support a *per se* legality approach.¹⁸⁶ In my view, they should focus on the appropriate probability of anti-competitive effects rather than recognising that there is an *ex ante* probability that bundling may be anti-competitive. Furthermore, they neglect the probability that bundling generates efficiencies and the magnitude of these effects. A final, fourth observation relates to the potential spill-over effects of a very cautious

¹⁸² Already, some commentators have suggested such an intermediate approach for technical bundling. See Sidak, *An Antitrust Rule for Software Integration* (Yale paper, 2001); and, Brief of Lessig As Amicus Curiae, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232).

¹⁸³ For such claims, see Evans and Salinger, "Why Do Firms Bundle and Tie? Evidence from Competitive Markets and Implications for Tying Law", Yale J. on Reg. 37 (2005).

¹⁸⁴ See Kühn, Stillman, and Caffarra, *op. cit.*, p. 107.

¹⁸⁵ See Denis Waelbroeck, "The Compatibility of Tying Agreements with Antitrust Rules: A Comparative Study of American and European Rules", Oxf. YEL 39 (1987), p. 54 (emphasis added).

¹⁸⁶ For a serious critique, see Kühn, Stillman, Caffarra, *op. cit.*, pp. 111-112.

enforcement approach for bundling. Such a policy could namely encourage firms with anti-competitive motives to implement their agenda by bundling, rather than more clear-cut abusive practices.¹⁸⁷

On the other hand, competition authorities and complaining rivals should prove that a bundling arrangement results in leveraging. They must *not assume* negative effects by applying a *per se* ban to bundling.¹⁸⁸ Two important observations can be made.

First, such a policy seriously downplays and sometimes even neglects the potential efficiency gains of bundling. Economic literature clarifies that bundling may result in efficiencies, but these have to be claimed and proven by the defendant.

Second, a *per se* ban appears to rely simply on the theoretical possibility of leveraging effects articulated in some models in order to claim such effects in specific cases. Indeed, post-Chicagoans show that leveraging may be a profitable business strategy, especially in the long term. It is submitted that the plausibility of leveraging must be carefully verified in each specific case. However, contrary to Ahlborn, Evans and Padilla, this does not imply that antitrust intervention necessarily requires a delicate assessment of whether the parameters and assumptions of the relevant economic theory fit the case.

In sum, both approaches are flawed and must not form, in my view, the basis for antitrust intervention.

6.2. The rule of reason test

Typically, courts and competition authorities are not so explicit about their logic when they articulate their legal tests. I wish to contend that they always adopt prior beliefs about the likelihood of specific business practices restricting competition. As a starting point for their legal analysis, this is a valid position. Arguably, the prior expectations of the consequences of bundling should be based on the economic insights discussed in this chapter.¹⁸⁹ On the one hand, bundling may have serious anti-competitive effects, particularly in the long term, if the tying firm has significant market power. On the other hand, it may generate efficiencies, though not as large and general as claimed by some authors.

¹⁸⁷ This recognition was introduced by Williams, economist, in a conference speech. He notes that "many types of abusive behaviour can be replicated by bundling." See Williams, "Economic Effects from Bundling", speech, Oxford Competition Policy Conference, 15 September, 2004.

¹⁸⁸ See Klein and Saft, *op. cit.*, correctly noting that most legal and economical analysis has been "arbitrary and incorrect" (p. 346).

¹⁸⁹ See also Evans, *op. cit.*, p. 95.

These characteristics, along with the flaws of the other approaches, suggests adopting a rule of reason test. Essentially, there are two types: an unstructured test and a structured test.

6.2.1. The unstructured test

The reliance on the unstructured rule of reason test is very problematic and requires a direct weighing of the pro-competitive and anti-competitive effects of the business practice. In practice, courts rarely quantify the positive and negative effects. They simply assert that one side or the other has no impact or is unrealistic. In fact, it is doubtful that, even with the help of economists, courts could correctly weigh the negative and positive effects of a particular practice. While theoretically the test has merit, it does not ultimately offer what the courts, antitrust authorities or businesses really need: operational and predictable rules that account for the possibility of error. Therefore, the test is to be rejected.

6.2.2. The structured test

The structured test offers a functional and predictable legal standard for parties involved. The problem is that none of economic theories discussed are designed to answer the question whether or not the strategic use of bundling is likely in a particular market with firms selling multiple products. In fact, the real debate is about identifying the circumstances under which anti-competitive effects of bundling are likely to occur. An effective antitrust policy for bundling should focus on those specific features that the literature recognises as necessary conditions for generating anti-competitive leveraging. In order to incorporate the theoretical insights of the literature, the following approach is suggested.¹⁹⁰

6.2.2.1. Safe harbour rules

It is first necessary to create safe harbour rules that can quickly filter out obviously innocent cases of bundling.¹⁹¹ This saves enforcement costs. Such an initial filter should be based on the most easily observable characteristics. Two elements are important here: market power and nature of the products.

As for market power, bundling should never be attacked if the firm engaging in bundling does not have a significant degree of market power in market A or one of the bundled components. Without market

¹⁹⁰ The *framework* of assessment is borrowed from Kühn, Stillman, and Caffarra, *op. cit.*, pp. 112-120.

¹⁹¹ For similar approach, see Regulation 772/2004 on the Application of Article 81(3) of the Treaty to Categories of Technology Transfer Agreements, [2004] OJ L 123/11, imposing safe harbours on the basis of market share thresholds.

power, the bundling undertaking has no strategic incentive to bundle. Any aim to exclude competitors by means of bundling would be thwarted by its rivals.

As for the products involved, bundling should not, even when market power is present, be attacked when it concerns substitutes and *in principle* complements.

First, if products are substitutes, they belong to the same relevant market, so there is only one market. Bundling two substitutes does not make economic sense, unless there are efficiency reasons such as economies of scale or scope.¹⁹² Bundling two goods together may prompt aggressive pricing responses by rivals, yielding lower profits to all market participants. By bundling substitutes, the bundling firm would create this cannibalisation effect and incur high losses. Second, considering the Chicago critique on the leveraging theory, bundling of complements is unlikely to have anti-competitive results, unless one of the markets involved is characterised by demonstrable network effects or a significant number of rivals is foreclosed from the tied market.

6.2.2.2. Likelihood of anti-competitive effects

After a firm is not protected under the safe harbour rules, it is necessary to produce criteria that make it possible to decide whether bundling is sufficiently likely to have anti-competitive effects. It is not possible to develop a simple checklist that allows competition authorities to distinguish harmful from benign bundling.

However, there are some characteristics that help in making a preliminary decision concerning the probability that bundling may reduce economic welfare. That probability is likely to be significant if:

- There is market power;
- There is a strong commitment to bundle;
- Competitors are unable to match the bundle;
- Rivals are likely to exit the tied market;
- There are entry barriers in the tied market;
- There is no buyer power;
- Demonstrable network effects are present;

¹⁹² See OPTA, *Bundling: The Economic Theory and a Framework for Ex-Ante Regulatory Assessment* (The Hague, 2004), pp. 18-19, <http://www.opta.nl/download/EPN04.pdf>.

- The bundled goods are R&D intensive or branded products; or,
- The bundled complements have the potential of becoming future substitutes

In the end, the plausibility of leveraging effects being at play should be carefully verified in each specific case. The key requirement of the investigation is to identify either that there are monopoly profits in the short term or that there are entry-deterrent effects in the long term. For the latter, it is important to establish that bundling is used to reduce the profits of existing or potential competitors, so as to either monopolise a market or to sustain an existing monopoly. An important element in such an assessment is documentary evidence of exclusionary intent. The absence of convincing efficiency arguments should be taken as evidence that bundling is more likely to have been driven by anti-competitive motives.

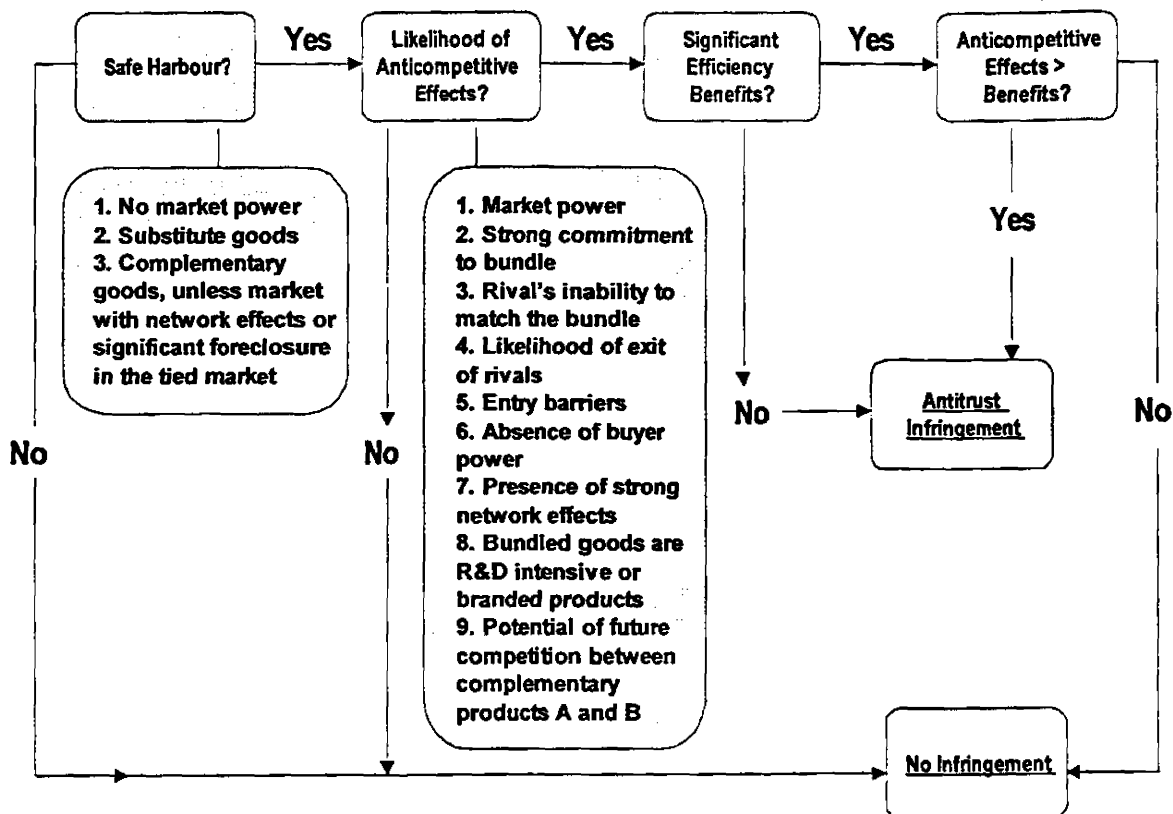
6.2.2.3. Efficiencies

The literature makes clear that bundling may result in efficiencies. Antitrust analysis should, in my view, be open for pro-competitive explanations. These benefits should be taken into consideration *after* the anti-competitive effects of the bundling arrangement have been established.

To be sure, efficiency benefits could off-set the competition analysis. It is important to assess whether *ex ante* efficiencies are to be achieved. The defendant's argument that unbundling would be costly or impractical must be *in principle* rejected. Efficiency claims must be assessed carefully because they often can be achieved without bundling. As the bundling firm is better informed, competition authorities should only consider those efficiencies that are explicitly submitted by the bundling firm. Likewise, because the defendant company has better information about how it achieves these efficiencies, the burden of proof should be placed on the defendant.

6.2.3. Framework of assessment

The structured rule of reason that I propose can be summarised in the following figure.¹⁹³ This figure sets out a multi-step approach:



7. Conclusions

The economic literature makes clear that antitrust scrutiny remains warranted in bundling cases. The question whether intervention is required demands a balanced answer. Wherever there is market power, authorities have reason to be watchful. Bundling a monopoly product with one that is competitively provided may result in the competitive market being distorted, particularly when there are network effects. It offers a way to extend monopoly in market B and to raise entry costs in that market in order to protect market A.

¹⁹³ My figure is an adaptation of a multi-step approach developed by Evans. For details, see Evans, *The Jefferson-Parish Tying Test: An Artifact from the Pre-Chicago Era of Antitrust*, 12 May 2005, www.aei.brookings.org/admin/authorpdfs/page.php?id=1146.

However, bundling may also offer efficiencies. Sorting out such benefits and costs of bundling will be particularly challenging for the courts and authorities, as the balance of benefits and costs will differ significantly case to case. The main economic rule of thumb is that the plausibility of leveraging potentially at play should be carefully verified in each specific case. Essential pre-condition is a position of market power in one of the markets involved. There are no bundles of substitute goods, just like, in principle, there are no bundles of complementary products. Beyond this observation, conditions under which these effects may occur differ considerably.

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1. Introduction

"The leverage issue," write Areeda and Kaplow, "permeates antitrust law."¹⁹⁴ Their statement is not only true for US law, but the issue has likewise been a major theme under EC law.¹⁹⁵ In sharp contrast, however, there is virtually no discussion in legal writings on this topic. More extensive commentaries dedicate usually only a short chapter (or even none) to the leveraging issue.¹⁹⁶ Chapter 2 discusses in detail the leveraging theory as a general antitrust concern under EC law.

¹⁹⁴ See Areeda and Kaplow, *Antitrust Analysis – Problems, Text, Cases* (Boston, 1988), p. 705.

¹⁹⁵ This is acknowledged in the literature. See Howarth, "Tetra Laval/Sidel: Microeconomics or Microlaw", *ECMR* 369 (2005), p. 372; and, Eilmansberger, "How to Distinguish Good from Bad Competition under Article 82 EC: in Search of Clearer and More Coherent Standards for Anti-Competitive Abuses", *CMLRev.* 129 (2005), pp. 153-166.

¹⁹⁶ Exceptionally, a few authors have a brief discussion of the leveraging issue: Wish, *Competition Law* (London, 2003), pp. 200-202; Jones and Sufrin, *EC Competition Law* (Oxford, 2004), pp. 373-378; and, Mégret, *Commentaire - le Droit de la CE - Concurrence* (Brussels, 1997), pp. 285-287. Generally, the literature appears to blur the distinction between the alleged competition concern and the attacked practice. Most standard text books are structured according to practices, not concerns. For instance, see Mestmäcker and Schweitzer, *Europäisches Wettbewerbsrecht* (München, 2004); Korah, *An Introductory Guide to EC Competition Law and Practice* (Oxford, 1997); and, Goyder, *EC Competition Law* (Oxford, 2003). The Commission seems to apply the same approach. In its Notice on the Application of the Competition Rules to Access Agreements in the Telecommunications Sector, [1998] OJ C 265/2, it identified as competition problems in the telecommunications sector: leveraging, bundling, and discrimination (at 82).

Leveraging concerns the transfer of power from the main market to an ancillary market. The concept of leveraging thus requires a multi-market context.¹⁹⁷ This chapter aims to examine if and how far Article 82 EC can be applied to these multi-market situations in order to capture the leveraging concern.

2. The connection between dominance and abuse

The application of Article 82 EC appears to presuppose a kind of link between the dominant position and the abuse of such a position. After all, the syntax of the expression 'abuse of a dominant position' makes it likely that it is not necessary to merely establish the existence of both 'abuse' and 'dominance.'

The literature and the Commission have undoubtedly advanced this reading. In its 1956 *Memorandum on the Concentration of Enterprises in the Common Market*, the Commission wrote that "an improper exploitation of a dominant position must be assumed when the dominant firm utilizes the opportunities resulting from its dominance to *gain advantages* it could not gain in the face of practicable and sufficiently effective competition."¹⁹⁸ While commenting on the Memorandum, Joliet remarks that the "abuse consists of *taking advantage* of the domination."¹⁹⁹ More recently, Gyselen likewise writes that:

a correct implementation of Article [82] requires that one distinguishes cases whereby a monopolist seeks to outcompete rival competitors through 'superior skill, foresight and industry' from cases where it *actuates its monopoly power to overcome these competitors*.²⁰⁰

In a very recent contribution, Eilmansberger concedes that the contention that abuse and dominance must be somehow connected finds additional support in the definition of dominance used by the Community Courts.²⁰¹ According to *Hoffmann-La Roche*, "the dominant position [...] relates to a position of economic strength enjoyed by an undertaking *which enables it to prevent effective competition* being maintained on the relevant market *by affording it the power to behave to an appreciable extent independently of its competitors, its customers and ultimately of the consumers*."²⁰² Thus, the literature appears to have accepted the need to establish some link.

¹⁹⁷ On the term 'multi-market situations', see Larouche, *Competition Law and Regulation in European Telecommunications* (Oxford, 2000), pp. 268-269.

¹⁹⁸ See 1956 *Memorandum on the Concentration of Enterprises in the Common Market*, at 24 (emphasis added).

¹⁹⁹ See Joliet, *Monopolization and Abuse of Dominant Position* (The Hague, 1970), p. 232 (emphasis added).

²⁰⁰ See Gyselen, "Abuse of Monopoly Power within the Meaning of Article 86 of the EEC Treaty: Recent Developments", *Fordham Corp. L. Inst* 597 (1990), p. 598 (emphasis added).

²⁰¹ See Eilmansberger, *op. cit.*, p. 142.

²⁰² Case 85/76, *Hoffmann-La Roche* [1979] ECR 461, at 138 (emphasis added by Eilmansberger).

Ultimately, the Courts have confirmed that some kind of link is indeed required. In *Tetra Pak II*, the ECJ observed flatly that the "application of Article 86 presupposes a link between the dominant position and the alleged abusive conduct."²⁰³ In *Irish Sugar*, the CFI emphasised with regard to the possible abuses of a collective dominant position that the abuse "has to be capable of being identified as one of the manifestations of such a joint dominant position."²⁰⁴

Having settled the issue *in principal*, this conclusion subsequently raises the question of *what* kind of link needs to be established.²⁰⁵ Despite references that could be drawn from the text of Article 82, it seems that a causal relationship between the dominant position and the abuse is not required.²⁰⁶ In *Continental Can*, the applicant defended its abusive acquisition of two rival companies with the argument that it had not used its market power to effect the merger in question. It submitted that causation was essential:

Article [82] reveals that the use of economic power linked with a dominant position can be regarded as an abuse of this position only if it constitutes the means through which the abuse is effected. But structural measures of undertakings – such as strengthening a dominant position by way of merger – do not amount to abuse of this position within the meaning of Article [82] of the Treaty.²⁰⁷

Advocate General Roemer purported the same view. In his opinion, he argued that the wording of Article 82 appears to hint that its application could be considered *only* if the position in the market was used as an instrument.²⁰⁸

In sharp contrast, the Commission recognised that the use of market power merely plays a part in the examples of discrimination, excessive pricing and tying that were mentioned in Article 82 EC. According to the Commission, market power clearly receded as a factual characteristic to the prejudice of consumers in the case of limitations of production, markets or technical developments. In these cases,

²⁰³ Case C-333/94P, *Tetra Pak International SA v. Commission (Tetra Pak II)* [1996] ECR I-59521, at 27. Notably, the cited statement was almost verbatim repeated by the Commission in its 1998 Notice on Access Agreements in the Telecommunications Sector (at 81).

²⁰⁴ Case T-228/97, *Irish Sugar v. Commission* [1999] ECR II-2969, at 66.

²⁰⁵ For an extensive review, see Vogelenzang, "Abuse of a Dominant Position in Article 86; The Problem of Causality and Some Applications", CMLRev. 61 (1976), pp. 66-72.

²⁰⁶ See Mestmäcker and Schweitzer, *op. cit.*, p. 388; Whish, *op. cit.*, pp. 197-198; Van Bael and Bellis, *Competition Law of the European Community* (Oxfordshire, 1994), pp. 576-577; and, Fierstra, *Europees Mededingingsrecht* (Deventer, 1993), p. 130. For a different view, see Groeben and Schröter, *Kommentar Zum EV/EG-Vetrag 2/1* (Baden-Baden, 1999), pp. 831-832.

²⁰⁷ Case 6/72, *Continental Can* [1973] ECR 215, at 19.

²⁰⁸ See Advocate General Roemer in Case 6/72, *Continental Can* [1973] ECR 215, concluding that "if this is indeed so, then the application of Article [82] to the present case must certainly be excluded" (p. 254).

there only needs to be harm to the consumer reflected in the conduct of the dominant firm having an effect on the market.²⁰⁹

However, the ECJ rejected the interpretations brought forward.²¹⁰ The Court found that it was possible to abuse a dominant position without actually exercising or bringing the market power held by the dominant undertaking into play.²¹¹ It justified the application of Article 82 EC to Continental Can's acquisition of rival competitors on the basis that the provision must have been intended to cover all conduct that has an impact on an effective competitive structure as required by Article 3(g). From a teleological perspective, this approach is, in my view, wholly convincing. The scope of Article 82 EC would be seriously reduced if the Commission could apply it only to practices that were attributable to the exercise of market power enjoyed by a dominant undertaking.

In the late 1970s, the ECJ and Advocate General Reischl confirmed the causation point in *Hoffmann-La Roche*.²¹² The case concerned the tying of purchases by means of an obligation to obtain all or most of the requirements exclusively from the dominant company, or by means of fidelity rebates. In defence, Hoffmann-La Roche claimed that the requirements had been established at the request of its customers. As the behaviour of a dominant company could only fall under Article 82 EC if it depends on the use of the dominant firm's market power, it maintained that the provision was not applicable. The Advocate General rejected the "Machtbeding" argument of Hoffmann-La Roche.²¹³ Likewise, the Court concluded that "the interpretation suggested by the applicant that an abuse implies that the use of the economic power bestowed by a dominant position is the means whereby the abuse has been brought about cannot be accepted."²¹⁴

In sum, the application of Article 82 EC does not require causation, but some kind of relationship between dominance and abuse must necessarily be established.

²⁰⁹ Case 6/72, *Continental Can*, Report for the Hearing, pp. 226-227.

²¹⁰ Case 6/72, *Continental Can*, at 23-26.

²¹¹ Case 6/72, *Continental Can*, at 27.

²¹² Case 85/76, *Hoffmann-La Roche*. See also Case 27/76, *United Brands* [1978] ECR 207, stating that "[i]t is advisable therefore to ascertain whether the dominant undertaking has made use of the opportunities arising out of its dominant position in such a way as to reap trading benefits which it would not have reaped if there had been normal and sufficiently effective competition" (at 249).

²¹³ See Advocate General Reischl in Case 85/76, *Hoffmann-La Roche*, stating that "the criterion is not the exercise of market power but that there is abuse where an undertaking in a dominant position influences the structure of competition by its acts" (p. 583).

²¹⁴ Case 85/76, *Hoffmann-La Roche*, at 91.

3. Comparing the US and EC models

If some kind of relationship between abuse and dominance suffices, the question arises how much connection is necessary. In my view, there is a sufficient link between the dominant position and the abuse in one-single market situations.²¹⁵ The one-single market situations are generally referred to as "the typical example of the application of Article [82]."²¹⁶ In such cases, dominance, the abuse and its effects are confined to the same relevant market. The Community Courts have always accepted that Article 82 EC applies in such cases.²¹⁷

For multi-market situations, two distinct models concerning the required connection between dominance and abuse can be identified: (1) the *very close link* model adhered to under US law; and, (2) the EC model of *close link*.²¹⁸ A comparison between the US and EC model shines a spotlight on some real divergence between the law and practice on the two sides of the Atlantic.

3.1. The very close link model under US law

The US model requires a *very close link* between market power and allegedly illegal behaviour. The US model concentrates on the situation where the dominant firm is already dominant in the ancillary market, or on the situation where the dominant player is close to becoming dominant in the aforementioned ancillary market. Ultimately, the dominant position held in the main market becomes irrelevant for the antitrust analysis. This model is generally substantiated by concrete evidence of anti-competitive conduct.

The case law under Sherman Act § 2 regarding monopolisation is illustrative of the US approach.²¹⁹ The claim of monopolisation is broadly defined as (1) the wilful acquisition or maintenance of monopoly power (2) by the use of anti-competitive conduct.²²⁰ US law appears to require a very close link before a

²¹⁵ See Sanfilippo, "Abuse of Freedom of Conduct: Neighbouring Markets and Application of Article 86", EBLR 71 (1995), writing that "[i]f not causality, then what is the relationship between market power and abuse? Until now a reasonable answer to this question was that both abuse and dominance had to be found in the same market and during the same time period" (p. 71).

²¹⁶ See Advocate General Colomer in Case C-333/94P, *Tetra Pak II* [1996] ECR I-5951, at 39. Instances of one-single market cases: Case 85/79, *Hoffmann-La Roche*; and, Case 27/76, *United Brands*.

²¹⁷ This was also acknowledged by Advocate General Colomer in Case C-333/94P, *Tetra Pak II*, at 39.

²¹⁸ This categorisation is borrowed from Larouche. Notably, he identifies a third model that is specifically applicable in sector-specific regulation: a *loose link* model. See Larouche, *op. cit.*, pp. 272-275.

²¹⁹ Sherman Act § 2 provides: "every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or person, to monopolize any part of the trade or commerce among several States, or with foreign nations, shall be deemed guilty of a felony."

²²⁰ *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 US 585 (1985), at 602.

monopolist would violate Sherman Act § 2 for leveraging concerns.²²¹ To be sure, this has not always been the legal position. The American case law has seen an expansion, and finally a decline, of the leveraging theory.²²²

The origins of the leveraging theory may be traced back to *Griffith*. In that case, the Supreme Court held that a movie exhibitor had violated Sherman Act § 2 by obtaining exclusive distribution rights covering a group of cities including some in which it was the dominant exhibitor.²²³ It stated, arguably *in dictum*, that § 2 prohibited “the use of monopoly power, however lawfully acquired, to foreclose competition, to gain a competitive advantage, or to destroy a competitor.”²²⁴ This statement appears to place the antitrust liability in the abuse of market power already held in the first market rather than the threat that market power would be created in the second market.

Another prominent example was *Berkey Photo*.²²⁵ Kodak developed a new camera and new film to accompany it. Berkey found itself at a disadvantage. It could not process the new film, only Kodak could. Berkey alleged that Kodak had used its dominant position in the camera production market to gain an advantage in the film processing market. The Second Circuit Court found that “a firm violates § 2 if by using its monopoly power in one market to gain a competitive advantage in another, albeit without an attempt to monopolize the second market.”²²⁶ Under the doctrine espoused, a monopolist violates Sherman Act § 2 when it uses its monopoly power to its advantage in a market outside the relevant market, even if the defendant is not a monopolist in that market or has no dangerous possibility of obtaining a monopoly position. Of course, this approach was met with great scrutiny. It was argued that the Court's formulation was difficult to reconcile with the text of the Sherman Act that proscribes monopolisation and attempted monopolisation, not “the abuse of one's dominant position.”²²⁷

Notably, *Berkey Photo* was delivered in 1979, and the case law has changed since then. Now it appears that a dominant firm is generally left free to enjoy the links between markets.²²⁸ For one, the *Berkey*

²²¹ Under US law, leveraging is generally known as ‘monopoly leveraging.’ For a detailed account, see Kattan, “The Decline of the Monopoly Leveraging Doctrine”, *Antitrust* 41 (1994).

²²² See Facey and Assaf, “Monopolization and Abuse of Dominance in Canada, The United States, and The European Union: A Survey”, *Antitrust L. J.* 513 (2002), p. 563. For detailed historical overview, see Clarke-Smith, “The Development of the Monopolistic Leveraging Theory and its Appropriate Role in Antitrust Law”, *Cath. U. L. Rev.* 179 (2002).

²²³ *United States v. Griffith*, 334 US 100 (1948).

²²⁴ *United States v. Griffith*, at 107.

²²⁵ *Berkey Photo Inc. v. Eastman Kodak Co.*, 603 F 2d 263 (2nd Cir. 1979), *cert. denied* 444 US 1903.

²²⁶ *Berkey Photo Inc. v. Eastman Kodak Co.*, at 275, citing further *Griffith* for the proposition that “a firm may not employ its market position as a lever to create or attempt to create a monopoly in another market.”

²²⁷ See Areeda and Hovenkamp, *Fundamentals of Antitrust Law* (New York, 2002), p. 89.

²²⁸ See Jebesen and Stevens, “Assumptions, Goals and Dominant Undertakings: The Regulation of Competition under Article 86 of the European Union”, *Antitrust L.J.* 443 (1996), p. 476.

doctrine has generally not been accepted outside the Second Circuit Court that handed down the ruling.²²⁹

The decision in *Alaska Airlines* is illustrative for this last observation.²³⁰ The case concerned the alleged excessive pricing fees Alaska Airlines was forced to pay in order to access United Airlines' computer reservation systems. The view of the Ninth Circuit Court was clear:

We now reject Berkey's monopoly leveraging doctrine as an independent theory of liability under § 2. Even in the two-market situation, a plaintiff cannot establish a violation of § 2 without proving that the defendant used its monopoly power in one market to obtain, or attempt to attain, a monopoly in the downstream, or leveraged, market. We believe that *Berkey Photo* misapplied the elements of § 2 by concluding that a firm violates § 2 merely by obtaining a competitive advantage in the second market, even in the absence of an attempt to monopolize the leveraged market.²³¹

The Court's reasoning for rejecting the leveraging theory was arguably based on Chicago-thinking. It explained that:

[t]hus, such [leveraging] activity may tend to undermine monopoly power, just like monopoly pricing. Every time the monopolist asserts its market dominance on a firm in the leveraged market, the leveraged firm has more incentive to find an alternative supplier, which in turn gives alternate suppliers more reason to think that they can compete with the monopolist.²³²

The Court's reasoning appears to have been founded on the single monopoly profit theory popularised by Chicago economists and commentators in the late seventies and eighties.²³³

Although the Supreme Court appears to have breathed new life into the leveraging theory in *Kodak*,²³⁴ the doctrine suffered a severe blow in *Spectrum Sports*.²³⁵ In the latter case, the Supreme Court stated that the Sherman Act "makes the conduct of a single firm unlawful only when it *actually monopolizes or*

²²⁹ See Clarke-Smith, *op. cit.*, calling this "the Circuit split on the monopolistic leveraging issue" (p.185).

²³⁰ *Alaska Airlines, Inc. v. United Airlines*, 948 F.2d 536 (9th Cir. 1991). See also *Catlin v. Washington Energy Co.*, 791 F.2d 1343 (9th Cir. 1986), where the Court expressed extreme doubts about the validity of the leveraging theory.

²³¹ *Alaska Airlines, Inc. v. United Airlines*, at 548.

²³² *Alaska Airlines, Inc. v. United Airlines*, at 549.

²³³ See Director and Levi, "Law and the Future: Trade Regulation", *North. U. L. Rev.* 281 (1956), pp. 290-292. For more details, see Chapter 1.

²³⁴ *Eastman Kodak Co. v. Image Technical Services* 504 US 451 (1992), suggesting that the antitrust liability may be found if "a seller exploits his dominant position in one market to expand his empire into the next" (at 479-480, fn. 29).

²³⁵ See Kattan, *op. cit.*, p. 43.

dangerously threatens to do so."²³⁶ Such a requirement would mean the demise of the leveraging theory.

However, some commentators claimed that the leveraging theory might continue to survive.²³⁷ This soon turned out to be false hope. In 2001, the Second Circuit Court clarified matters in *Virgin Airways v. British Airways*:

In *Berkey Photo, Inc. v. Eastman Kodak Co.*, we stated it would also be a violation of § 2 to use monopoly power in one market to gain a competitive advantage in another, even without an attempt to monopolize the second market. Since *Berkey Photo*, we have questioned this proposition [...] In *Spectrum Sports*, the Supreme Court stated that § 2 of the Sherman Act 'makes the conduct of a single firm unlawful only when it *actually monopolizes or dangerously threatens to do so*'. Such a requirement goes beyond 'gain[ing] a competitive advantage' as set out in the *Berkey Photo*.²³⁸

Recently, the Supreme Court's decision in *Trinko* sounds the end for the leveraging theory under Sherman Act § 2.²³⁹ This judgment may be seen as the 'final' triumph of the Chicago school. The case involved the unilateral refusal to deal with competitors. Verizon was the exclusive local exchange carrier for the state of New York, until the Telecommunications Act of 1996 uprooted its monopoly by introducing competition into the market. Under the 1996 Act, Verizon was compelled to share its network with new rivals in exchange for obtaining the right to enter the long-distance telephone business.

In 1999, several of the entrants complained that their orders for access were going unfilled. Verizon entered into a consent decree with regulators and paid fines. The day after the consent decree was signed, the Law Offices of Curtis Trinko, which bought services from one of the new entrants, filed an antitrust complaint against Verizon. It claimed that Verizon had violated § 2 by failing to provide service to the new entrants in a timely manner. The District Court dismissed Trinko's antitrust claim, but the

²³⁶ *Spectrum Sports v. McQuillan*, 506 US 447 (1993), at 891 (emphasis added). The legal standard was repeated in *United States v. Microsoft*, 253 F. 3d 34 (D.C. Cir. 2001). On the facts, the Court of Appeals reversed the District Court's determination of liability under Sherman Act § 2 because it had merely recycled the facts demonstrated under the Sherman Act § 1 claim.

²³⁷ See Kareff, "The European Approach to Monopoly Leveraging", L. & Pol. in Int'l Bus. 549 (1997), p. 552. There was continued ambiguity in the case law. In *Howerton v. Grace Hospital*, 96 F.3d 1438 (4th Cir 1996), the Fourth Circuit Court observed that it had not yet decided whether a leveraging claim is legally possible, whereas in *Hewlett-Packard Co. v. Arch Assoc. Corp.*, 908 F. Supp. 265 (E.D. Pa. 1995), the Court refused to dismiss a complaint of monopoly leveraging.

²³⁸ *Virgin Atl. Airways Ltd. v. British Airways PLC*, 2001 US App Lexis 16590, at 14 (emphasis added). See also *Twin Labs. Inc. v. Weider Health & Fitness*, 900 F.2d 566 (2d Cir. 1990), in which the Second Circuit Court already observed that the *Berkey* theory of obtaining advantages in the second market was mere *dictum* (at 570).

²³⁹ *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko (Trinko)*, 540 US 682 (2004).

Court of Appeals reversed this decision holding that Verizon's refusal to deal with potential rivals could be an act of monopolisation under Sherman Act § 2. The Supreme Court granted *certiorari*.

The Supreme Court appears to have used this case to put the final nail in the leveraging coffin. While recognising the continuing importance of the Sherman Act, the Court clearly disapproved of Trinko's proposed use of § 2 as too expansive:

The mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system. The opportunity to charge monopoly prices—at least for a short period—is what attracts 'business acumen' in the first place; it induces risk taking that produces innovation and economic growth. To safeguard the incentive to innovate, the possession of monopoly power will not be found unlawful unless it is accompanied by an element of anticompetitive conduct.²⁴⁰

Concerned with the facts, Trinko asserted that Verizon's behaviour mirrored the dispute in *Aspen Skiing* where the defendant had ceased marketing a multi-mountain ski lift pass in a joint effort with its rival.²⁴¹ According to the Supreme Court, this refusal violated Sherman Act § 2.

Conversely, the Court observed in *Trinko* that *Aspen Skiing* was "at or near the outer boundary of §2 liability."²⁴² Notably, the defendant had terminated a profitable cooperation in *Aspen Skiing*. It preferred, the Court stressed, short-term profits in hopes of long-term monopoly profits, even turning down cash for the sale of its lift tickets at full retail price. Essentially, Verizon had not previously provided service to the new entrant. In addition, its refusal was not an exit from a mutually beneficial business activity. Pushing *Aspen Skiing* further out on the § 2 limb, the Court suggested that a monopolist's obligation to deal with a rival only emerges in limited circumstances.

For our purposes, the most significant aspect of *Trinko* was the Supreme Court's treatment of the plaintiff's leveraging claim. Although relegated to a footnote, the Court held that the Second Circuit had erred "[t]o the extent that the Court of Appeals dispensed with a requirement that there be a 'dangerous probability of success' in monopolizing a second market" in the context of leveraging. In so doing, the Supreme Court effectively overruled, in my view, the Second Circuit's decision in *Berkey Photo*. In other words, it indicated that a monopolist's efforts to extend its monopoly power must do more than merely result in a competitive advantage in another market.

²⁴⁰ *Verizon Communications Inc. v. Law Offices of Curtis v. Trinko*, at 879 (emphasis added).

²⁴¹ *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*

²⁴² *Verizon Communications Inc. v. Law Offices of Curtis v. Trinko*, at 883.

In sum, the main focus of the US model appears to be on the second market. Leveraging can only constitute an infringement of Sherman Act § 2 if the defendant is already dominant in the second market or if there is a dangerous probability of acquiring monopoly power in that market.

3.2. The close link model of the EC

"The link between the dominated market and the market affected by the abuse," observed Advocate General Colomer, "must be a close one."²⁴³ According to the Community Courts, a close link between dominance and abuse indeed appears to be sufficient. Under the EC model, markets are closely linked when there is a probable proposition that the behaviour of the dominant company would likely have anti-competitive effects on another market.²⁴⁴

Essentially, this approach assesses the risk that a company might successfully leverage its market power. Compared to the US model, EC law does not require dominance on the ancillary market or intent to gain a dominant position in that market. In addition, there is no need to put forward concrete evidence as to the dominant position in the second market, but rather, evidence substantiating the risk of leveraging effects.

Arguably, requiring a very close link comparable to the US model would be contrary to the general principles of European competition law.²⁴⁵ For one, EC law usually focuses on the effects of market behaviour.²⁴⁶ The companies' intent is less important for antitrust intervention. Article 81(1) EC prohibits cooperation that has as its 'object or effect' the restriction of competition. It is clear from the judgment in *Maschinenbau Ulm* that the wording of Article 81(1) EC is to be read disjunctively.²⁴⁷ If the object of the agreement is anti-competitive, then it can be condemned without pressing further.²⁴⁸ Where the anti-

²⁴³ See Advocate General Colomer in Case C-333/94P, *Tetra Pak II*, at 57.

²⁴⁴ For different view, see Howarth, *op. cit.*, p. 372.

²⁴⁵ Confusingly, the Commission appears to suggest the adoption of the US model in the 1998 Notice on Access Agreements in the Telecommunications Sector, where it referred to "extremely close links between the dominated and non-dominated market" (at 65). It has not repeated that position. Notably, Advocate General Lenz in Case 311/84, *Télémarketing*, also appears to favour a very close link approach (p. 3268). For a similar reading of the jurisprudence, see Larouche, *op. cit.*, pp. 272-275.

²⁴⁶ See Case 5/69, *Völk v. Vervaeke* [1969] ECR 295; and, Cases 29 & 30/83, *Rheinzink v. Commission* [1984] ECR 1679, at 20.

²⁴⁷ Case 56/65, *Société Technique Minière v. Maschinenbau Ulm* [1966] ECR 235, stating that "[t]he fact that these are not cumulative but alternative requirements, indicated by the conjunction 'or', leads first to the need to consider the precise purpose of the agreement, in the economic context in which it is to be applied [...] Where, however, an analysis of the said clauses does not reveal the effect on competition to be sufficiently deleterious, the consequences of the agreement should then be considered" (at 249).

²⁴⁸ Agreements that are particularly heinous and indefensible are condemned without any further analysis of the market circumstances. Case 45/85, *Verband der Sachversicherer eV v. Commission* [1987] ECR 405, stating that "[a]s the Court has

competitive quality of an agreement is not evident from its object, one must consider the effects of the agreement, as emphasised by the ECJ in *Delimitis*.²⁴⁹

Although Article 82 EC does not contain the terms 'object or effect,' it has also been established in the case law that the existence of an abuse depends on the objective effect on competition.²⁵⁰ Going back to *Hoffman-La Roche*, the ECJ made it clear that the concept of abuse is objective. Abuse does not depend on the ill will of the dominant firm.²⁵¹ The ruling describes abuse as "recourse to methods different from those which condition normal competition [...] which has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition."²⁵² As for merger control, it concentrates on "a prospective analysis of the effects" of a notified concentration.²⁵³

A second important principle of EC law is that a dominant undertaking has a "special responsibility" not to allow its market behaviour to impair genuine competition.²⁵⁴ The concept of special responsibility suggests that particular legitimate conduct may become illegal when employed by a dominant company.²⁵⁵ The actual scope of the special responsibility must be considered in light of the specific circumstances of each case.²⁵⁶ A dominant undertaking does not have the responsibility to refrain from particular activities. Rather, the undertaking must refrain from those activities that, given all circumstances of the case, are inappropriate with relation to its degree of dominance.

Thus, the threshold at which a dominant undertaking may infringe European law is lower than under US law. As soon as competition is hindered, even if it concerns a market on which the undertaking is not dominant, an abuse may have taken place.

consistently held, it is unnecessary to consider the actual effects of an agreement if it is apparent that it has the object of preventing, restricting or distorting competition" (at 39).

²⁴⁹ Case C-234/89, *Delimitis v. Henniger Bräu AG* [1991] ECR I-935, where the ECJ said, when considering a beer supply agreement, that "[e]ven if such agreements do not have the object of restricting competition within the meaning of Article 85(1) [now 81(1)], it is nevertheless necessary to ascertain whether they have the effect of preventing, restricting or distorting competition" (at 13).

²⁵⁰ For similar view, see Sinclair, "Abuse of Dominance at a Crossroads – Potential Effect, Object and Appreciability under Article 82 EC", ECLR 491 (2004), pp. 497-500.

²⁵¹ Case 85/76, *Hoffmann-La Roche v. Commission*, stating that "[t]he concept of abuse is an objective concept relating to the behaviour of an undertaking in a dominant position" (at 91).

²⁵² Case 85/76, *Hoffmann-La Roche v. Commission*, at 91.

²⁵³ Case T-80/02, *Tetra Laval v. Commission* [2002] ECR II-4519, at 153.

²⁵⁴ Case 322/81, *Michelin v. Commission (Michelin I)* [1983] ECR 3461, at 57; and, Case T-228/97, *Irish Sugar v. Commission*, at 112.

²⁵⁵ See Gyselen, *op. cit.*, p. 597.

²⁵⁶ See Case C-333/94, *Tetra Pak II*, at 24.

4. The legal position of the multi-market requirement

The very concept of leveraging presupposes that a separate market to which the market power can be transferred exists. It is therefore a bit surprising that the relevance of this condition was only recently confirmed conclusively by the ECJ in *IMS Health*.²⁵⁷

That case involved a typical instance of leveraging through a refusal to supply. The dispute concerned access to IMS' proprietary structure for collecting and distributing drug sales data in Germany. IMS refused to license the use of the structure to a competitor. As a result, the latter could not offer competing sales reports on the basis of IMS' structure that had become the industry standard. Prior to the Commission's decision in *IMS Health*, antitrust cases concerning refusals to deal by dominant companies, whether or not IP rights were implicated, involved situations where two distinct markets could implicitly be identified.²⁵⁸ In all such cases, the company refusing to deal was dominant in a market for a raw material or an input for a second derivative market.²⁵⁹

Another reason favouring the multi-market requirement seems to lie within the structure of Article 82 EC itself. This provision does not prohibit a dominant position, but only the abuse thereof. This means that a company holding a dominant position in a market for a certain product cannot be compelled to yield a share of this market. In other words, under Article 82 EC, a dominant company is not obliged to assign a certain share of customers of the dominated market to its rivals in order to improve competition.

This argument can be illustrated by the following example. Let us assume that there is market for a soft drink X produced with a unique and secret formula, and that manufacturer A has a dominant position on that market because of the strong consumer preferences for the taste of this special drink. Rival B could not rely on Article 82 EC to force A to provide him with A's formula. This would amount to directly attacking the dominant position of A. By contrast, if B wanted to produce its own soft drink with its own

²⁵⁷ Case C-418/01, *IMS Health v. NDC Health* [2004] ECR I-5039. For detailed reviews, see Stothers, "IMS Health and its implications for Compulsory Licensing in Europe", EIPR 467 (2004); and, Derclaye, "Abuses of a Dominant Position and Intellectual Property Rights: A Suggestion to Reconcile the Community Courts Case Law", W.Comp. 685 (2003).

²⁵⁸ With regard to refusal to supply, the literature has recognised the multi-market requirement. See Lang, "Anticompetitive Abuses under Article 82 involving Intellectual Property Rights", 8th EU Competition Law and Policy EUI Workshop, 2003, p. 16. For the illogical view not requiring two markets, see Fine, "NDC/IMS: A Logical Application of Essential Facilities Doctrine", ECLR 457 (2002), p. 461.

²⁵⁹ This list of classic cases includes: Cases 6 & 7/73, *Istituto Chemioterapico Italiano v. Commission* [1974] ECR 223; Case 311/84, *Centre belge d'études de marché v. CLT (Télémarketing)* [1985] ECR 3261; Cases C-241 & 242/91P, *RTE v. Commission (Magill)* [1995] ECR I-743; and, Case C-7/97, *Brunner v. Mediaprint* [1998] ECR I-7791.

formula, and A controlled of the supply of an essential raw material, then A could be forced to supply it to B as the essential component constitutes a separate market. It appears reasonable to conclude that there is some logic in the multi-market scheme in leveraging cases.

In *IMS/Health*, the Commission had tried to overcome the multi-market requirement by applying an illogical one-market approach.²⁶⁰ It appears to consider the identification of two markets to be an irrelevant issue. Instead, the Commission focused on the fact that IMS' structure was "an indispensable input to allow an undertaking to compete in the market for regional sales data services in Germany."²⁶¹ The Commission noted that "refusing access to this structure to competitors on the relevant market would exclude all competition from this market, and [...] therefore IMS' refusal to license the [...] structure involve[ed] abusive conduct."²⁶² It concluded that IMS was abusing its dominant position in a given market by refusing to license to rivals active in the same market a structure that was an input for this market. It did not attempt to maintain that there were two markets, one upstream market for the structure and one downstream market for regional sales data.

Likewise, in its suspension order, the CFI President seems to have agreed that the absence of two markets was not dispositive. In fact, President Vesterdorf considered the IMS structure to constitute a separate product, as it is an "indispensable [element] to the supply of a separate service and of no utility unless incorporated in the latter."²⁶³

Arguably, implicit in these decisions is the idea that there is no market where the element concerned serves no purpose other than as a component of a downstream product. In other words, the component has no use and no commercial life of its own, unless integrated with another product. One has to recognise that the Commission's approach comes very close to punishing the IMS' dominant position itself, and *not* the abuse of that position. If there were only the market for the provision of regional sales data services in Germany, and IMS had a prime product, the obligation to grant a compulsory license on one ingredient of the product may be interpreted as compelling IMS to yield a share of its market to its competitors. However, the rivals of IMS were not asking to be supplied with the sales reports issued by

²⁶⁰ Case COMP/38.044, *NDC Health/ IMS Health*, decision of 3 July 2001, <http://europa.eu.int/comm/competition/antitrust/cases/decisions/38044/en.pdf>.

²⁶¹ Case COMP/38.044, *NDC Health/ IMS Health*, at 184.

²⁶² Case COMP/38.044, *NDC Health/ IMS Health*, at 185.

²⁶³ Case T-184/01 R, *IMS Health v. Commission*, decision of 26 October 2001, not yet reported, at 84.

IMS based on its structure. In fact, they were simply asking for permission, in order to distribute their own sales reports, to use a given reporting structure that had become the industry standard.

In my view, the multi-market scheme based on a distinction between the final product and the inputs could have helped solve the case. IMS' structure is a simple grid of territories. The sales reports are the final product, consisting of the form of IMS' structure and the substance of the sales information. By taking such an explicit multi-market approach, the Commission could have avoided a lot of criticism and properly applied a leveraging scheme.²⁶⁴

Advocate General Tizzano in *IMS* also reached the result of a multi-market approach, but through a very broad interpretation of the notion 'market.' According to the Advocate General, it is sufficient to identify a market for the input that is situated at an upstream level in the production chain even where such a market is only "potential."²⁶⁵ The term 'potential' is defined by Advocate General Tizzano as a market in which a monopolist company decides not to market separately for its own use in a downstream market, thereby restricting or totally eliminating competition in the downstream market.²⁶⁶ Arguably, compared to the Commission's approach, Mr Tizzano satisfactorily meets, at least in result, the multi-market requirement by adopting a broad interpretation of the concept of 'market' including 'potential' markets.

Finally, all uncertainties were solved by the ECJ's clear-cut statement requiring a multi-market setting. Considering the exclusion of all competition in a secondary market due to the refusal by IMS, the ECJ stated that "it is *determinative* that two different stages of production may be identified."²⁶⁷ The ruling also brought another welcome clarification in this context. The Court affirmed that the identification of a separate upstream market is not precluded by the fact the product or service in question was not intended to be marketed separately.²⁶⁸ The Court's ruling is an important conceptual clarification. For one, it confirms that leveraging applies to a duplication of market power by capturing a new market.²⁶⁹

²⁶⁴ For criticism, see Eilmansberger, *op. cit.*, pp. 161-162.

²⁶⁵ See Advocate General Tizzano in Case C-418/01, *IMS Health v. NDC Health*, at 57.

²⁶⁶ See Advocate General Tizzano in Case C-418/01, *IMS Health v. NDC Health*, at 57-59.

²⁶⁷ Case C-418/01, *IMS Health v. NDC Health*, at 45 (emphasis added).

²⁶⁸ Case C-418/01, *IMS Health v. NDC Health*, when discussing the ruling in Case 7/97, *Bronner*, it noted that "[t]he fact that the home-delivery service was not marketed separately was not regarded as precluding, from the outset, the possibility of identifying a separate market" (at 43).

²⁶⁹ The US Supreme Court in *Eastman Kodak Co. v. Image Technical Service, Inc.*, 504 US 451 (1992) refers to a new empire. It notes that "[w]e have held many times that power gained through some natural advantage such as a patent, copyright or business acumen can give rise to liability if a seller exploits his dominant position in one market to expand his empire into the next" (at 480, fn 29, emphasis added).

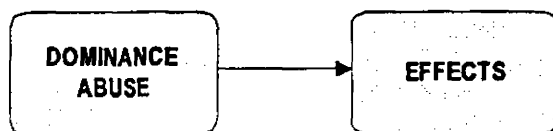
The ruling also makes it clear that leveraging applies to the case of transfer of market power to a further production stage, often downstream.

5. Discussion of the multi-market scenarios under EC law

Broadly speaking, three possibilities of multi-market scenarios are open under EC law: (1) the abuse of a dominant position has effects on another market; (2) the abuse in another market has effects on the dominated market; and, (3) abuse and effects are in a market other than the dominated one.²⁷⁰ For the leveraging theory, I will argue that the first two scenarios are essential.

5.1. The abuse of a dominant position has effects in another market

Under the first scenario, the dominance and the abuse are in the main market, whereas the effects are felt in an ancillary market. This scenario is best illustrated by the following figure:



Originally, this scenario was propounded in *Commercial Solvents*.²⁷¹ Commercial Solvent was dominant on the market for aminobutanol, a raw material used in the production of ethambutol, an anti-tuberculosis drug. The relationship between the markets was vertical. After having entered the market for ethambutol, Commercial Solvent ceased the supply of aminobutanol to independent manufacturers.

Following Advocate General Warner,²⁷² the ECJ upheld the contested decision that Commercial Solvent's conduct constituted an abuse of its dominant position on the market for aminobutanol. This conclusion was reached regardless that the effects of the abuse were in the market for ethambutol. The Court appears to have focused on the risk of eliminating competition in the second market:

²⁷⁰ See also the 1998 Notice on Access Agreements in the Telecommunications Sector, at 81.

²⁷¹ Other instances of this version of multi-market situations: Case COMP/37.859, *De Post-La Poste* [2002] OJ L61/32, at 36-51, which concerned the statutory monopolist in the basic letter service market tying to exclude competition on the business-to-business market; and, Case IV/32.318, *London European* [1974] L 317/47, at 30, dealing with the refusal by Sabena to give access to its computerised reservation services which was aimed at driving out London European, a private British airline company, from the air transport route between Brussels and London-Luton.

²⁷² See Advocate General Warner in Cases 6 & 7/73, *Commercial Solvent*, pp. 268-270.

an undertaking being in a dominant position as regards the production of raw material and therefore able to control the supply of manufacturers of derivatives, cannot, just because it decides to start manufacturing these derivatives (in competition with its former customers) act in such a way as to eliminate one of the principal manufacturers of ethambutol in the common market. Since such conduct is contrary to the objectives expressed in Article [3(g)] of the Treaty and set out in greater detail in Articles [81 and 82], it follows that an undertaking which has a dominant position in the market for manufacturing its own derivatives, refuses to supply a customer, which is itself a manufacturer of these derivatives, and therefore *risks eliminating all competition* on the part of this customer, is abusing its dominant position within the meaning of Article [82].²⁷³

Likewise, *Télémarketing* endorsed a scenario where the effects of the alleged abuse took place in another market. In that case, the ECJ condemned the refusal of RTL television station to sell television time to a telephone marketing company that competed with RTL's own telephone marketing activities, unless the telephone number listed in the advertisements was that of television station's subsidiary. The abuse of RTL may be seen both as a refusal to supply and as an illegal bundling arrangement. Either way, RTL was intending to exclude other undertakings from competing with its own subsidiary on the downstream telemarketing market.

After recalling *Commercial Solvents*, the ECJ found that "telemarketing activities constitute a separate market from that of the chosen advertising medium, although *closely associated* with it."²⁷⁴ RTL's refusal to supply to CBEM was "intended to reserve to the agent any telemarketing operation broadcast by the said station, with the *possibility of eliminating all competition from another undertaking*."²⁷⁵ Therefore, it concluded that:

an abuse within the meaning of Article 86 [now 82] is committed where, without any objective necessity, an undertaking holding a dominant position on a particular market reserves to itself or to an undertaking belonging to the same group an ancillary activity which might be carried out by another undertaking as part of its activities on a neighbouring but separate market, with the *possibility of eliminating all competition from such undertaking*.²⁷⁶

One has to contrast the Court's approach with Advocate General Lenz's opinion. His analysis did not focus on the required link between the markets identified at all. Basically, he suggested following the US

²⁷³ Cases 6 & 7/73, *Commercial Solvent*, at 25.

²⁷⁴ Case 311/84, *Télémarketing*, at 7 and 26 (emphasis added). See also Case C-260/89, *Elliniki Radiophonia Tileorasi v. DEP* [1991] ECR I-2935, at 37-38, concerning a TV company pursuing a discriminatory broadcasting policy favouring its own programmes.

²⁷⁵ Case 311/84, *Télémarketing*, at 26 (emphasis added).

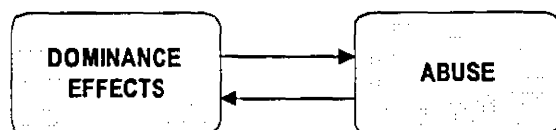
²⁷⁶ Case 311/84, *Télémarketing*, at 27.

model, as he stressed the need to establish that the dominance of the main market is actively used to eliminate rivals in the second market.²⁷⁷

In both cases discussed, the abuse took place in the dominated market but its effects were felt in another market. Commercial Solvents and RTL engaged in abusive practices on the dominated markets in order to reserve for themselves an ancillary activity in another market in which they did not hold a dominant position. In both cases, the defendants' behaviour was condemned for the risk of eliminating all competition in the non-dominated market.

5.2. The abuse in another market has effects in the dominated market

The second scenario relates to the situation where the abuse takes place in a market other than the dominated market, but still has effects in the main market. This scenario is best illustrated by the following figure:



The scenario is grounded in *BPB*.²⁷⁸ In this case, the markets involved were related, though not vertically. British Gypsum was dominant in the market for plasterboard, where it granted fidelity rebates to its distributors. In the market for plasters, where it was not dominant, British Gypsum had adopted a practice by which it granted priority to orders for plaster from those distributors who were 'loyal' in the plasterboard market.

The CFI considered British Gypsum's priority conduct to be abusive although, unlike previous case law, the abuse was committed outside the relevant market. According to the CFI, the practice of preferential orders was certainly intended to strengthen British Gypsum's dominant position in the plasterboard market. Article 82 prohibits a dominant undertaking from "strengthening its position by having recourse

²⁷⁷ See Advocate General Lenz in Case 311/84, *Télémarketing*, stating that "an undertaking abuses its dominant position in the market if it uses that position to force its way into a neighbouring market and does not confine itself to participating in that market but simultaneously attempts [...] to eliminate competition of those already active in the market" (p. 3268) (emphasis added).

²⁷⁸ Case T-65/89, *BPB Industries Plc. v. Commission* [1993] ECR II-389. The appeal was on procedural grounds and dismissed by the ECJ. See Case C-310/93 P, *BPB Industries Plc. v. Commission* [1995] ECR I-865.

to means other than those falling within competition based on merits."²⁷⁹ That requirement was not met by the preferential criterion adopted by British Gypsum. Referring back to the objective concept of abuse, the CFI concluded:

where the competitive structure of a market has already been weakened by the conduct of an undertaking in a dominant position, any additional restriction on that competitive structure is liable to constitute abuse of the dominant position thus acquired [...] It follows that British Gypsum's attempt to exclude its competitors, by giving priority to orders for plaster placed by customers constitutes an abuse [...] of its dominant position in the market for the supply of plasterboard.²⁸⁰

It is sometimes claimed that *AKZO* involved a multi-market situation like *BPB*.²⁸¹ The Commission indeed believes that *AKZO* dealt with two different markets. This is noticeable in the 1998 Notice on Access Agreements in the Telecommunications Sector, which treats both cases as instances where the abuse on a market other than the dominated had effects on the dominated market.²⁸² In its decision in *Tetra Pak II*, the Commission expressly explained that "[the *AKZO*] judgment dealt with [...] the commission of an abuse on a market other than that on which the undertaking undoubtedly has a dominant position."²⁸³

Likewise, Advocate General Colomer saw both rulings as instances where the abuse is committed on a market in which the undertaking does not hold a dominant position, but whose effects were still to strengthen the dominant position.²⁸⁴ It is doubtful whether Advocate General Colomer was truly convinced about his categorisation, as he stated that "[t]he *AKZO* judgment rests on facts which, *with certain nuances*, fall within that category."²⁸⁵ Indeed, there are good reasons to distinguish *AKZO* from *BPB*.

In *AKZO*, the ECJ discussed (albeit rather confusingly) two distinct segments in the market for organic peroxides: the plastics and flour segments.²⁸⁶ *AKZO* undertook a predatory pricing campaign against the complainant, ECS in the flour additives segment. The market for flour additives was essential for ECS, but only of limited importance to *AKZO*. The price reductions were intended to prevent ECS from

²⁷⁹ Case T-65/89, *BPB Industries Plc. v. Commission*, at 94.

²⁸⁰ Case T-65/89, *BPB Industries Plc. v. Commission*, at 95-96. The CFI annulled the contested decision on a non-related point (at 98).

²⁸¹ Case C-62/86, *AKZO v. Commission* [1991] ECR I-3359. See also Case IV/30.178, *Napier Brown v. British Sugar*, [1988] L 284/41.

²⁸² See also the 1998 Notice on Access Agreements in the Telecommunications Sector, at 81.

²⁸³ Case IV/31.043, *Tetra Pak II*, [1992] OJ L72/1, at 104.

²⁸⁴ See Advocate General Colomer in Case C-333/94P, *Tetra Pak II*, at 45.

²⁸⁵ See Advocate General Colomer in Case C-333/94P, *Tetra Pak II*, at 45 (emphasis added).

²⁸⁶ Case C-62/86, *AKZO v. Commission*, at 40-45.

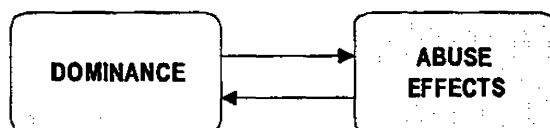
entering the plastics segment. AKZO could subsidise any losses made in the flour additives segment by profits made in the plastics segment, a possibility which was not available to ECS. Despite the fact that organic peroxides had various uses, the Court accepted that it was all *one* market. This means that the market of dominance and the market in which the abuse was conducted were one and the same: the market for organic peroxides. Therefore, AKZO did not concern a multi-market situation.

Although *BPB* was issued by the CFI, the ECJ and Advocate General Colomer cited the ruling, thereby suggesting that they agree with it.²⁸⁷ The situation in *BPB* appears to be just opposite of that in *Commercial Solvents* and *Télémarketing*. In the latter cases, the refusal to deal occurred within the main market and its effects were perceived in a derivative market. In *BPB*, the practice considered abusive took place in a related market and its effects were perceived in the main market. Although the CFI did not refer explicitly to the risk or possibility of strengthening, it focused on the possible future consequences of British Gypsum's behaviour. A close examination of the Court's considerations reveals the striking fact that the Court is only interested in the possible effects of the conduct of the dominant firm, and much less in the actual effects.²⁸⁸

In conclusion, the picture that emerges is that the scope of Article 82 EC clearly covers any abusive behaviour having an effect on the dominated relevant market, regardless of whether it takes place on a separate market. This conclusion may be explained as an understandable application of the doctrine that construes abuse as an objective concept, as held in *Hoffmann-La Roche*.

5.3. Abuse and effects are in a market other than the dominated market

The final scenario to consider surely extends the application of Article 82 EC even beyond *British Gypsum*. This scenario considers the situation that *both* the abusive behaviour and the effects are in a market other than the dominated market. This scenario is best illustrated by the following figure:



²⁸⁷ See Advocate General Colomer in Case C-333/94P, *Tetra Pak II*, at 45.

²⁸⁸ Case T-65/89, *BPB Industries Plc. v. Commission*, at 92-97.

The scenario was addressed in *Tetra Pak II*.²⁸⁹ In that case, the ECJ concluded that Tetra Pak had infringed Article 82 EC by predatory pricing and bundling in the market for non-aseptic cartons and packaging machines. Tetra Pak held a quasi-monopolistic position in the market for aseptic cartons and packaging machinery. The abusive behaviour was intended to benefit Tetra Pak's position in the non-aseptic market. In the overall market for packaging both aseptic and non-aseptic cartons, Tetra Pak held a market share of 78%.

It was remarkable that Tetra Pak was not found dominant in the market for non-aseptic cartons and packaging machinery. Likewise, it could have easily been found dominant in that market given its market shares ranging from 48 to 52%. It should be stressed that the decision against Tetra Pak was issued 3 weeks after the ruling in *AKZO*. Notably in that case, the ECJ had established that a market share of 50% is *in itself* evidence of a dominant position.²⁹⁰ Notwithstanding its express reference to this formulation, the Commission did not find Tetra Pak dominant in the non-aseptic market.²⁹¹

After citing *Commercial Solvents*, *Télémarketing*, *AKZO* and *British Gypsum*, the ECJ stressed in *Tetra Pak II* that the scenario of abuse and effects in a market other than the dominated market "can only be justified in special circumstances."²⁹² Upholding the findings of the CFI, it found that the special circumstances arose from: (1) the close associations between the main aseptic market and the ancillary non-aseptic market; (2) the quasi-monopolistic position held by Tetra Pak on the relevant market; and, (3) its leading position on the non-dominated market.²⁹³

These circumstances justified the application of Article 82 EC to behaviour taking place outside the dominated market and having effects in the ancillary market. When describing the "close associative links" between the main and ancillary market, it discussed the fact that customers in one market are also potential customers in another, as 35% of Tetra Pak customers bought aseptic and non-aseptic systems.²⁹⁴ It noted also that Tetra Pak and its most important competitors were present in all markets identified and that Tetra Pak, given its complete domination of the aseptic market, could concentrate its efforts on the non-aseptic markets by acting independently of the other economic operators.

²⁸⁹ Case C-333/94 P, *Tetra Pak II*.

²⁹⁰ Case C-62/86, *AKZO*, at 60.

²⁹¹ Mysteriously, the Commission claimed that "such an approach would be too restrictive in the case at hand." See COMP IV/31.043, *Tetra Pak II*, at 104.

²⁹² Case C-333/94 P, *Tetra Pak II*, at 27.

²⁹³ Case C-333/94 P, *Tetra Pak II*, at 31.

²⁹⁴ Case C-333/94 P, *Tetra Pak II*, at 29.

Essentially, *Tetra Pak II* extends the previous law because the abuse was committed on a non-dominated market in order to gain advantage in that latter market. Tetra Pak was not protecting its dominant position in the main market, but was trying to gain a competitive advantage on another market. Given the uniqueness of this type of multi-market situation, the Court emphasised that Article 82 EC may be applied only where it is justified by 'special circumstances.' These circumstances were considered to create sufficient link between dominance and abuse. The fact that the ECJ referred to its earlier decisions in *Commercial Solvents* and *Télémarketing* appears to indicate that it was concerned with the risk of eliminating all competition in the non-dominated market.²⁹⁵

In my view, this final scenario has the potential risk of undermining the bedrock requirement of having a link between dominance and the abuse. There is no doubt that the situation of *Tetra Pak II* marks the furthest extent to which it is possible to relax the essential connection between both elements. Going any further would surely be unreasonable. In fact, the next scenario would have been the situation where the dominant position and the abuse are on different and unrelated markets. The necessity of a link between dominance and abuse was succinctly emphasised by Advocate General Colomer:

an absolute disjuncture of a dominant position and the abuse, to such an extent that they may occur on completely different and separate markets, is not acceptable. Such an approach would mean that an undertaking holding a dominant position on any one market would be unable to compete under conditions of equality with other undertakings on other markets, because the commercial practices required to penetrate those other markets would in most cases constitute an abuse of its dominant position. Nor, moreover, does a dominant position on one market necessarily place the undertaking which holds it in a better position than other undertakings to act on other markets [...] It is therefore unreasonable that the latter should have to bear the special responsibility imposed by Article 82 EC when it participates in markets completely separate from the dominated market.²⁹⁶

Not surprisingly, the ruling in *Tetra Pak II* was not received with unmitigated enthusiasm in legal circles. For some, the judgment indicates "distrust for dominant undertakings."²⁹⁷ Others like Korah and Subiotto emphasise the differences between the earlier case law and the circumstances that lead to the ruling in *Tetra Pak II*.²⁹⁸ As the case was concerned with a new set of circumstances that had never been before the Court, it is not remarkable at all that this scenario could be isolated from earlier cases.

²⁹⁵ Case C-333/94 P, *Tetra Pak II*, at 25.

²⁹⁶ See Advocate General Colomer, in Case C-333/94 P, *Tetra Pak II*, at 42.

²⁹⁷ See Art and Liedekerke, "Developments in EC Competition Law in 1996 – An Overview", CMLRev. 895 (1997), p. 896.

²⁹⁸ See Korah, "Tetra Pak II – Lack of Reasoning in Court's Judgment", ECLR 98 (1997), pp. 100-102; and, Subiotto, "The Special Responsibility of Dominant Undertakings Not to Impair Genuine Undistorted Competition", W.Comp. 5 (1996), pp. 8-12.

Arguably, the Court's case law could be seen as an evolutionary body of law.²⁹⁹ The extension appears to be logical in light of the objective definition of the concept of abuse.³⁰⁰ Moreover, the importance accorded in *Tetra Pak II* to the quasi-monopolistic position should be noted. It reflects the added responsibility for undertakings that enjoy a position of dominance. A dominant firm should be aware of its duty not to impair genuine competition in those markets where its very presence has weakened competition.

However, a final remark relates to the limited scope of the judgment. The ruling emphasised that the following factors, taken together, gave rise to a close association between the market of dominance and the market in which the abuse took place: (1) the abusive commercial conduct took place in a neighbouring non-dominated market; (2) there were close links between the two markets identified; (3) Tetra Pak was active in both markets; (4) Tetra Pak was significantly stronger than any of its rivals; (5) Tetra Pak's customers were active in both markets. In practice, the coincidence of these factors occurs only rarely, as Levy duly notes.³⁰¹

Without doubt, the ECJ can be criticised for not properly motivating its approach. For one, it is remarkable that the Court cited *AKZO* as that case concerned ultimately a one-single market situation.³⁰² Moreover, paragraph 28 of the ruling was a conclusion, not a reason for the extended application of Article 82 EC. Notably, the ECJ did not inquire whether the special circumstances were indeed sufficient for the alleged behaviour.³⁰³ It failed to provide any indication as to the relevance of these links to the characterisation of the impugned practices. In sharp contrast, the Commission recognised the need to show that Tetra Pak's dominance on the aseptic markets permitted it to act abusively on the non-aseptic markets. During the hearing, it stated: "where the conduct of a dominant undertaking on a market where it is not dominant is not facilitated by that dominant position on another market, that conduct does not preclude the normal play of competition and cannot therefore be abusive."³⁰⁴

Unfortunately, the evidence put forward by the Commission was not convincing. The Commission stressed that Tetra Pak's dominance in the aseptic market gave it the financial resources to price below

²⁹⁹ For similar view, see Advocate General Colomer in Case C-333/94 P, *Tetra Pak II*, at 52-54.

³⁰⁰ Case 85/76, *Hoffmann-La Roche v. Commission*, at 91.

³⁰¹ See Levy, "Tetra Pak II: Stretching the limits of Article 86?", ECLR 104 (1995), p. 109.

³⁰² Case C-333/94 P, *Tetra Pak II*, at 25.

³⁰³ See Levy, *op. cit.*, pp. 107-108.

³⁰⁴ See Report for the Hearing, Case C-333/94 P, *Tetra Pak II*, at 78.

cost in the non-aseptic market.³⁰⁵ This point was repeated during the hearing when it stated that predation in the non-aseptic markets "was made possible by the profits realized on the sales of aseptic cartons."³⁰⁶ Arguably, this factor is not entirely conclusive. As Tetra Pak rightly noted, pricing below cost on the non-aseptic markets could have been a sound commercial decision, even in the absence of the dominant position in the aseptic markets.³⁰⁷ The Court appears to have agreed with the applicant, as the Commission's argument was not developed any further.

Recently, the approach espoused in *Tetra Pak II* was applied by the Commission in a dispute between Virgin and British Airways ("BA"). The case involved two unusually related markets: the market for air travel agency services and the air transport market. Virgin had complained to the Commission that BA was trying to stop it from expanding in the air transport market. BA was accused of paying commission to travel agents selling BA tickets. In the Commission's decision, BA was found dominant in the UK market for air travel agency services.³⁰⁸ It had abused this dominant position in order to gain anti-competitive advantages in the air transport market.³⁰⁹

On appeal, the CFI upheld the contested decision because there was an "undeniabl[y] close connection" between the two markets identified.³¹⁰ For this conclusion, the Court stressed: (1) the vital retail function of travel agents for airlines; (2) the fact that 85% of all air tickets are sold through travel agents; and, (3) the reduced sales of these agents has an effect on BA's revenues. Therefore, it held that the Commission was right to hold that the "nexus required by Article 82 EC existed between the United Kingdom market for the travel agency services which airlines purchase from travel agents and the United Kingdom air transport market."³¹¹

At first glance, the case appears to closely resemble the decision in *Commercial Solvents*. On the contrary, the reality was quite different. For one, the case arose from the intense competition in the air transport market. BA was held dominant in a rather artificial market. In addition, the effects of BA's abuse were noticeable on another market where BA's powerful position was in fact the source of its

³⁰⁵ Case IV/31.043, *Tetra Pak II*, noting that "[o]wing to its dominant position on the aseptic packaging market, from which it drew virtually all its resources, Tetra Pak could afford to sell at prices which must be described as 'eliminary' in a sector which was of marginal importance to it" (at 149).

³⁰⁶ See Report for the Hearing, Case C-333/94 P, *Tetra Pak II*, at 80.

³⁰⁷ See Report for the Hearing, Case C-333/94 P, *Tetra Pak II*, in which Tetra Pak argued that "[a]ny financially sound undertaking is in a position to support losses which [...] are relatively limited, without resorting to such cross-financing" (at 80).

³⁰⁸ Case COMP 34.780, *Virgin/British Airways* [2000] OJ L 30/1, at 47 and 84.

³⁰⁹ Case COMP 34.780, *Virgin/British Airways*, at 96-111.

³¹⁰ Case T-219/99, *British Airways v. Commission*, at 132.

³¹¹ Case T-219/99, *British Airways v. Commission*, at 135.

dominance on the first market. Arguably, both the CFI and Commission improperly relied on the theory developed in *Tetra Pak II*.

In sum, the doctrine that abuse and effects in the non-dominated market are also caught by Article 82 has to be applied with due care.

5.4. The multi-market scenarios discussed and strategic bundling

At this point, it is useful to evaluate how strategic bundling relates to the multi-market scenarios discussed in the preceding sections. For one, identifying dominance is usually the easy part of the analysis. The company under investigation typically holds a dominant position in the bundling or tying market. Yet, placing bundling as an abuse is more difficult. Arguably, the abusive behaviour takes place in the market where the company also holds a dominant position. Like with refusal to supply, it concerns conduct that is directly linked to the dominant position held by the company.³¹²

As for the effects, it is recalled that bundling concerns the transfer of power from the main market to other markets in order to achieve anti-competitive advantages in the short or long term.³¹³ Short-term leveraging is in clear accordance with the scenarios in *Commercial Solvents* and *Télémarketing*. Like in those cases, the bundling abuse takes place on the dominated market but its effects are felt on another market. The same reasoning applies to long-term leveraging aimed at entry deterrence in the ancillary market.

As for defensive leveraging, it appears not to fit neatly one of the scenarios discussed.³¹⁴ Rather, it falls, with certain nuances, in two categories. On the one hand, it could likewise be categorised as a *Commercial Solvents* scenario as the first effects are felt on another market. On the other hand, it resembles the scenario discussed in *BPB*, as the final effects on competition are discernable in the main market. The difference is that the abuse takes place in the main market, not the ancillary market. Remarkably, the final scenario that abuse and effects are in a market outside the dominated one, is therefore not essential for leveraging cases.

³¹² For overlap between both practices, see Case 311/84, *Télémarketing*.

³¹³ For details, see Chapter 1.

³¹⁴ Arguably, it may also be called a 'convoluted' one-single market case.

6. Conclusions

This chapter has shown that EC law witnessed the steady extension of the scope of application of Article 82 EC. It has become clear from the case law of the Community Courts and from the decisional practice of the Commission that it is not necessary for the dominance, abuse and the effects of the abuse to all be in the same market. It is now trite that Article 82 EC can be infringed if a dominant undertaking uses its position in one market in order to obtain an advantage in another market. Of all multi-market scenarios discussed, the first two scenarios are relevant for the leveraging theory with regard to bundling practices.

PART B

EX POST CONTROL OF BUNDLING

CHAPTER 3

BUNDLING UNDER US ANTITRUST LAW

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1. Introduction

In the first part, my examination of the leveraging theory started on an economic-theoretical and abstract-legal level. At this point, this research moves to analyse the practical implications of these insights. Part B concentrates on *ex post* regulation of bundling. To make a useful comparative study, Chapter 3 presents a capsule history of the bundling analysis under US law.³¹⁵ "Tying agreements," the US Supreme Court noted in 1949, "serve hardly any purpose beyond the suppression of competition."³¹⁶ This statement expresses plainly the main rationale that was noticeable under US law for many decades. This thinking has resulted in a *per se* illegality test for bundling. The pervading theme of this third chapter is the gradual erosion of the *per se* test. Today US law appears to prefer an unstructured rule of reason test.

2. A trilogy of antitrust scrutiny

A complex trilogy of antitrust rules applies to bundling. The basic US statute on bundling is § 3 of the Clayton Act.³¹⁷ It does not mention bundling or tying by name. Rather, it prohibits certain kinds of sales and leases made on the condition that the purchaser or lessee not to deal with others. As § 3 only deals with sales or leases of "goods, wares, merchandise, machinery, supplies, or other commodities," it does not cover a substantial range of possible practices involving, for instance, the sale of land or services. In sharp contrast, the Sherman Act applies to both goods and services. As a result, authorities and private litigants have been forced to rely on § 1 and 2 of the Sherman Act.³¹⁸ Typically, bundling proceeds under Sherman Act § 1 because it is often in the form of a 'contract,' and thus easily classifiable as "a

³¹⁵ Recently, no extensive comparative writings have been published in the EU. There is some older work: Frey, *Tying Arrangement - Tying Arrangement als Typus einer vertikalen Wettbewerbsbeschränkung im amerikanischen Antitrustrecht* (Munich, 1982); Jansen, *Die Kopplungsverträge im Recht der Wettbewerbsbeschränkungen* (Berlin, 1968); and, Mitchell, *Die Rechtliche und Wirtschaftliche Bedeutung von Tying Contracts - Eine vergleichende Darstellung nach deutschem und amerikanischem Recht* (Cologne, 1961).

³¹⁶ *Standard Oil Co. v. United States*, 337 US 293 (1949), at 305.

³¹⁷ Clayton Act § 3 states that it is unlawful to "lease or sell goods, wares, merchandise, machinery, supplies, and other commodities, whether patented or unpatented, on the condition that the lessee or purchaser shall not use the goods of a competitor of the lessor or seller, where the effect of such a condition may be a substantially lessen competition or tend to create a monopoly."

³¹⁸ Sherman Act § 1 states that "every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among several states, or with foreign nations, is declared to be illegal" and it proscribes in § 2 that it is illegal to "monopolize, or attempt to monopolize, or combine or conspire with any other persons to monopolize any part of the trade or commerce among several states."

restraint of trade.” Bundling may also constitute a method by which a defendant monopolises or attempts to monopolise a particular market.

On the other hand, Sherman Act § 2 is rarely used to combat anti-competitive bundling due to its very high threshold for a monopolisation claim.³¹⁹ Given the more pointed language of Clayton Act § 3, it has been a vexing issue whether the Clayton Act was intended to be more strict than the Sherman Act.³²⁰ Notably, the terms “may be to” and “tend to” suggest a legal standard that is triggered at a stage prior to the actual realisation of anti-competitive effects.³²¹ At one point, the case law appeared to confirm this reading. In *Times-Picayune*, the Supreme Court suggested that a tying arrangement could be condemned under more aggressive standards under Clayton Act § 3 than under Sherman Act § 1.³²² A few courts have adhered to this approach.³²³ Today the standard under both statutes is the same, however.³²⁴

Within its mandate to prevent unfair competitive practices, the Federal Trade Commission (“FTC”) can move against bundling under § 5 of the FTC Act.³²⁵ Likewise, the provision contains no express reference to bundling or tying. Initially, the Supreme Court appeared to accept broader standards under the FTC Act. In *Brown Shoe*, for instance, the Supreme Court upheld FTC’s condemnation of a practice under which Brown provided special services to franchisees in exchange for a promise they would concentrate their sales efforts on Brown Shoes.³²⁶ In backing up FTC, it rejected the argument that proof of anti-competitive effects was necessary. FTC is allowed, the Court noted, to attack trade

³¹⁹ For more details, see Chapter 2. For a rare success under Sherman Act § 2: *United States v. United Shoe Machines Co.*, 110 F. Supp. 295 (D. Mass. 1953), *aff’d*, 347 US 521 (1954).

³²⁰ See Kramer, “The Supreme Court and Tying Arrangements: Antitrust as History”, Minn. L. Rev. 1013 (1985), p. 1023.

³²¹ For details, see Lazaroff, “Reflections on *Eastman Kodak Co. v. Image Technical Services, Inc.*: Continued Confusion Regarding Tying Arrangements and Antitrust Jurisprudence”, Wash. L. Rev. 101 (1994).

³²² *Times-Picayune v. United States*, 345 U.S. 594 (1953), suggesting that the Clayton Act must have broader coverage than the Sherman Act because otherwise Clayton Act § 3 would have been superfluous (at 608-609). The Clayton Act applied, the Court reasons, to every agreement the effect of which “may be substantially to lessen competition”, whereas the Sherman Act only reached agreements actually “in restraint of trade.” For the latter, the plaintiff must show *both* that the seller had sufficient market power in the tying market and that the tie-in restrained a substantial volume of competition in the tied market. However, if the plaintiff could show only one of these, then the bundle might still be in violation of Clayton Act § 3.

³²³ *Town Sound and Customs Tops v. Chrysler Motors Corp.*, 959 F.2d 468 (3d Cir. 1992), *cert. denied*, 506 US 868 (1992), suggesting that market power is not required under the Clayton Act (at 485); and, *Ware v. Trailer Mart, Inc.*, 623 F.2d 1150 (6th Cir. 1980), noting that the market power in the tying market is “relevant only if [the plaintiff] intends to prove a *per se* violation of Section 1” of the Sherman Act, but not in a § 3 Clayton Act case (at 1153).

³²⁴ *Grappone v. Subaru of New England*, 858 F.2d 792 (1st Cir. 1988), noting that the same test applies “regardless of whether a plaintiff charges a violation of Sherman Act § 1 or Clayton Act § 3” (at 794).

³²⁵ FTC Act § 5 reads as follows: “unfair methods of competition in commerce, and unfair or deceptive acts or practices in commerce, are declared unlawful.”

³²⁶ *FTC v. Brown Shoe Co.*, 384 US 316 (1966).

restraints "in their incipency without proof that they amount to an outright violation of § 3 of the Clayton Act or other provisions of the antitrust laws."³²⁷

However, despite the prior expansive readings of § 5, FTC's ability to condemn conduct that falls outside of the law's coverage was significantly curtailed in *Du Pont de Nemours*.³²⁸ A District Court reversed the finding that FTC Act § 5 had been violated by uniform pricing practices, independently reached by manufacturers of anti-knock gasoline additives. The undertakings sold their products on a delivered-price basis. They provided customers 30 days' advance notice of price changes and notified the press of price increases before they took effect. They also employed 'most favoured nations'-clauses guaranteeing customers that they would receive the same price.

In holding that no violation of § 5 occurred, the Court ruled that Congress did not give the agency the power "to bar any business practice found to have an adverse effect on competition. Instead, the Commission could proscribe only unfair practices or methods of competition."³²⁹ It required FTC to find "at least some indicia of oppressiveness [...] such as (1) evidence of anticompetitive intent or purpose on the part of the producer charged, or (2) the absence of an independent legitimate business reason for its conduct."³³⁰ In sum, the standard under § 5 FTC Act was brought in line with the analysis followed under the Sherman and Clayton Acts.

3. The chequered history of bundling analysis

"There is reason," writes Lessig, "to believe that the law in this area is unsettled."³³¹ Although referring in particular to technological bundling, Lessig's observation has a general application and appeal. Despite its long tradition, the Supreme Court has never settled upon a coherent approach to distinguish between benign and harmful bundles. The Court has swung from one extreme to another.³³² The legal oscillation has resulted in a sort of middle ground between some of the more extreme approaches now purporting a modified *per se* test. The recent proceedings against Microsoft signal, at least at the level of the circuit court, a clear shift to an unstructured rule of reason.

³²⁷ *FTC v. Brown Shoe Co.*, at 322.

³²⁸ *E.I. du Pont de Nemours & Co. v. FTC*, 729 F. 2d 128 (2d Cir. 1984). See also *Ethyl Corp.*, 101 FTC 425 (1983).

³²⁹ *E.I. du Pont de Nemours & Co. v. FTC*, at 136.

³³⁰ *E.I. du Pont de Nemours & Co. v. FTC*, at 139.

³³¹ See Brief of Lessig As Amicus Curiae, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), p. 1. For reference work, see Areeda and Hovenkamp, *Fundamentals of Antitrust Law* (New York, 2002), pp. 733-888; Hovenkamp, *Federal Antitrust Policy – The Law of Competition and Its Practice* (St Paul, 1994), pp. 351-381; and, Gellhorn and Kovacic, *Antitrust Law and Economics* (St. Paul, 1994), pp. 326-340.

³³² See Bauer, "A Simplified Approach to Tying Arrangements: a Legal and Economic Analysis", *Vanderbilt L. Rev.* 283 (1980), writing that "[t]here is as much heat as light in this area" (p. 284).

3.1. The patent misuse origin of the leveraging theory

The origin of the analysis of bundling is espoused throughout the course of defining patent infringement allegations.³³³ These cases involved the efforts of a patent holder to tie its patented product to a second, often unpatented product.

In *Button Fastening*, for instance, the plaintiff sold a patented machine for fastening buttons with staples to shoes under the restriction that the machine could only be used with staples purchased from it.³³⁴ The defendant sold compatible staples to the users of the machines. He was sued for patent infringement. Upholding the lower court's decision, the Court of Appeals ruled that the defendant had infringed the patent by breaching the bundle. Other lower courts have followed this approach. They held that patent holders were allowed to tie a riveting machine with unpatented rivets³³⁵, a copying machine with the supplies of unpatented ink³³⁶, and a bottle-handling machine with bottle caps.³³⁷

The tying question was not presented to the Supreme Court until 1912. In *Henry v. Dick*, the plaintiff sold its patented stencil-duplicating machines on the condition that they could only be used with stencil paper, ink and other supplies produced by it.³³⁸ Holding that it was permitted for a patentee to bundle a second unpatented product to its patented invention, the Supreme Court noted:

[I]f it be that the ingenuity of patentees in devising ways in which to reap benefits of their discoveries requires to be restrained, Congress alone has the power to determine what restraint shall be imposed. As the law stands it contains none, and the duty which rests upon this and very court is to expound the law as it is written.³³⁹

A vigorous dissent was entered by Judge White. Stripped to its essential logic, he advanced the proposition that a tie to a patented commodity was equivalent to allowing a monopoly over the second

³³³ *Jefferson Parish Hospital District No. 2 v. Hyde*, 466 US 2 (1984), noting that "[t]he roots" of the *per se* rule against bundling date to patent infringement suits (at 9).

³³⁴ *Heaton Peninsula Button Fastening Co. v. Eureka Specialty Co.*, 77 Fed. 288 (6th Cir. 1896).

³³⁵ *Tubular Rivet & Stud Co. v. O'Brien*, 93 Fed. 200 (D. Mass 1898).

³³⁶ *Cortelyou v. Carter's Ink Co.*, 118 Fed. 1022 (S.D.N.Y. 1902).

³³⁷ *Crown Cork & Seal Co. v. Brooklyn Bottle Stopper Co.*, 172 Fed. 225 (E.D.N.Y. 1909).

³³⁸ *Henry v. A. B. Dick Co.*, 224 U.S. 1 (1912).

³³⁹ *Henry v. A. B. Dick Co.*, at 35.

good. This additional monopoly, he reasoned, went beyond the one granted to the holder and should not be protected by the patent law.³⁴⁰

In response to the significant consequences of *Henry v. Dick*, the Congress passed the Clayton Act in 1914. One of reasons to adopt the Act was due to the risk of leveraging. Mentioning the behaviour of two successful companies at that time (United Shoe and General Film), Congress considered that bundling is "one of the greatest agencies and instrumentalists of monopoly ever devised by the brain of man. It completely shuts out competitors, not only from trade in which they are already engaged, but from the opportunities to build up trade in any community where these great and powerful combinations are operating under this system and practice."³⁴¹

Ultimately, the Supreme Court overruled its overly lenient approach in 1917. In *Motion Picture*, the Court saw that the patent holder of a motion picture projector licensed it with the restriction that the projector could solely be used to project the holder's unpatented films.³⁴² When a licensee used the projector to show other films, the holder sued him for patent infringement. Although the Court observed that the Clayton Act constituted "a most persuasive expression of the public policy of our country with respect to the question," it did not apply the Act.³⁴³ Instead, it considered the holder's exclusive right to use the machine and found that "the materials with which the machine is operated are no part of the patented machine."³⁴⁴ Its rationale was to prevent that firms may "extend the scope of its patent monopoly by restricting the use of it to materials necessary in its operation, but which are not part of the patented invention."³⁴⁵

Later, in 1931, the decision in *Carbice* re-emphasised that bundling another unpatented good with a patented good was outside the scope of the patent monopoly.³⁴⁶ Arguably, the evil that the Court sought to forestall was likewise the extension of monopoly power. Allowing a patent holder to tie an unpatented good might allow the owner of a patent to "secure a partial monopoly on the unpatented supplies consumed in its operations."³⁴⁷

³⁴⁰ *Henry v. A. B. Dick Co.*, in which Judge White wrote that "[t]hat which was not embraced by the patent, which could not have been embraced therein and which if mistakenly allowed and included in an express claim would have been inefficacious, is now by the effect of a contract held to be embraced by the patent and covered by the patent law" (at 51).

³⁴¹ See H.R. Rep. No. 627, 63d Cong., 2d Sess. 13 (1914), pp. 12-13.

³⁴² *Motion Picture Patents Co. v. Universal Film Manufacturing Co.*, 243 US 502 (1917).

³⁴³ *Motion Picture Patents Co. v. Universal Film Manufacturing Co.*, at 517-518.

³⁴⁴ *Motion Picture Patents Co. v. Universal Film Manufacturing Co.*, at 513.

³⁴⁵ *Motion Picture Patents Co. v. Universal Film Manufacturing Co.*, at 517.

³⁴⁶ *Carbice Corp. of America Patent Development Corp.*, 283 US 27 (1931). For similar ruling, see also *Mercoid Corp. v. Mid-Continent Investment Co.*, 320 US 661 (1944).

³⁴⁷ *Carbice Corp. of America Patent Development Corp.*, at 32.

3.2. The early days of the Clayton Act

After the strict patent misuse doctrine, the early judicial scrutiny under the Clayton Act appears to have gone in the opposite direction.³⁴⁸ The Supreme Court seems to have followed a kind of rule of reason analysis in deciding whether bundling adversely affects competition.

One of the early cases is *United Shoe*. In that case of 1922, the Court affirmed an injunction against the conditions that United Shoe used for leasing its shoe making machines.³⁴⁹ Its leases did not explicitly forbid shoe manufacturers from using machines supplied by rivals with United Shoe's machines. But, the contract also stipulated that United Shoe could cancel the lease if the licensee failed to comply with a set of provisions that effectively prohibited the use of rival machines.³⁵⁰ Noting that "United Shoe occupies a dominant position in the production of such machinery"³⁵¹, the Supreme Court was satisfied to conclude that "*such* restrictive and tying agreements must necessarily lessen competition and tend to monopoly is, we believe, equally apparent."³⁵² The word 'such' suggests that the Court was convinced that *not all* bundling is bad, but that the leasing contract at hand was anti-competitive.

Another important case is the ruling in *IBM*, delivered in 1936. The IBM Corporation conditioned the sale of its business machines upon the lessee's agreement to exclusively purchase tabulating cards from it.³⁵³ As IBM's rivals were very small, the Court inferred monopoly power in the tying market.³⁵⁴ Finding that the \$ 3 million annual sales of the tabulating cards were a substantial amount of commerce, the Court held that the effect of the arrangement "may be to substantially lessen competition." IBM claimed that it could only by the use of its own cards assure the proper operation of the machines. In response, the Supreme Court said that it would only be willing to entertain such a defense if no other reasonable and less competitively harmful alternative was available. As the evidence indicated that rivals were able to produce cards with no adverse effect, IBM's claim was turned down.³⁵⁵

³⁴⁸ See Mitchell, *op. cit.*, referring to these cases as "exceptions" (p. 49).

³⁴⁹ *United Shoe Machinery Corp. v. United States*, 258 US 451 (1922).

³⁵⁰ *United Shoe Machinery Corp. v. United States*, referring to the "practical effect" of United Shoe's behaviour (at 457).

³⁵¹ *United Shoe Machinery Corp. v. United States*, at 455.

³⁵² *United Shoe Machinery Corp. v. United States*, at 457 (emphasis added).

³⁵³ *International Business Machines v. United States*, 298 U.S. 131 (1936).

³⁵⁴ *International Business Machines v. United States*, stating that "[a]ppellant makes and sells 3,000,000,000 cards annually, 81 per cent of the total, indicating that the sales by the Remington Rand Company, its only competitor, representing the remaining 19 per cent, are approximately 600,000,000" (at 136).

³⁵⁵ *International Business Machines v. United States*, rejecting the asserted business justification by stating "[t]he suggestion that without the tying clause an adequate supply of cards would not be forthcoming from competitive resources is not supported by the evidence" (at 138-139).

For one, these early cases under the Clayton Act did not explicitly spell out a legal standard. It could be argued, however, that the requirement of market power and analysis of the competitive effects, along with the discussion of justifications, suggests an assessment quite similar to the rule of reason test.³⁵⁶ Under this abbreviated form, the Court would examine: (1) whether the defendant has market power in the tying product market; (2) the effects of the bundle on the market for the tied good; and, (3) the availability of less restrictive alternatives.³⁵⁷

3.3. The increased emphasis on *per se* principles in *International Salt* and *Northern Pacific Railway*

Observers who expected the Supreme Court to continue to apply this kind of rule of reason test were promptly treated to a rude shock. The earlier hostile attitude of the patent cases was soon carried over into a *per se* test.³⁵⁸ However, that is not to say that the Supreme Court treated bundling in precisely the same manner as it did when treating classic *per se* violations like as price-fixing.

The legal standard was first enunciated in *International Salt*.³⁵⁹ *International Salt* leased its patented salt-dispensing machines on the condition that its machines are used to only deposit salt purchased from it. Under an English clause, licensees were also allowed to use salt of rival suppliers if they offered better conditions. *International Salt* was found to hold a limited monopoly in the market for the tying product because its products were patented and it was "the country's largest producer for industrial uses."³⁶⁰ The Supreme Court stressed that, as a result of the bundle, a substantial amount of business was foreclosed in the tied good market.

Based on these facts, the Court unanimously condemned *International Salt's* tying practices under Sherman Act § 1 and Clayton Act § 3 because "it is unreasonable, *per se*, to foreclose competitors from any substantial market."³⁶¹ Without explaining how the defendant could foreclose more salt sales than it already had, it held that "[b]y contracting to close this market for salt against competition, *International*

³⁵⁶ This observation is recognised in the literature. See Anlauf, "Severing Ties With the Strained Per Se Test for Antitrust Tying Liability: The Economic and Legal Rationale for a Rule of Reason", *Hamline L. Rev.* 477 (2000), pp. 486-487; Gellhorn and Kovacic, *op. cit.*, p. 329; and, Frey, *op. cit.*, p. 140.

³⁵⁷ See Hylton, *Antitrust Law – Economic Theory and Common Law Evolution* (Cambridge MA, 2003), p. 286.

³⁵⁸ The first indication of this rigid approach was *Pick Mfg. Corp. v. General Motors Corp.*, 80 F. 2d 641 (7th Cir. 1935), *aff'd.*, 299 US 3, where the Court refused a defense with the words: "[e]ven if we are free to make an exception" (at 10).

³⁵⁹ *International Salt Co. v. United States*, 332 U.S. 392 (1947).

³⁶⁰ *International Salt Co. v. United States*, at 394-395.

³⁶¹ *International Salt Co. v. United States*, at 396.

Salt has engaged in a restraint of trade for which its patents afford no immunity from the anti-trust laws."³⁶² International Salt argued that, since the lease contracts required it to repair and maintain machines, it should be permitted to require lessees to comply with use specifications. The salt that the company required its lessees to use was purer than many grades on the market, and therefore posed less risk of damaging the machines. Like in *IBM*, the Court held that the company had the less restrictive alternative available of requiring lessees to use salt of a certain quality.³⁶³

The *per se* language continued in *Standard Oil*.³⁶⁴ Although not a bundling case, the Supreme Court gave an important explanation for its unsympathetic treatment of bundling. It noted that "[t]ying agreements serve hardly any purpose beyond the suppression of competition."³⁶⁵ The *per se* test was developed further in *Northern Pacific Railway*. The case concerned the question whether preferential routing contracts violated Sherman Act § 1.³⁶⁶ Northern Pacific leased and sold land situated near its rail lines on the condition that licensees ship the products produced on those lands unless other carriers offered better rates or services. The Supreme Court affirmed the *per se* test:

Among the practices which the courts have heretofore deemed to be unlawful in and of themselves are [...] tying arrangements [...] Indeed tying arrangements serve hardly any purpose beyond the suppression of competition [...] They are unreasonable in and of themselves whenever a party has sufficient economic power with respect to the tying product to appreciably restrain free competition in the market for the tied product and a not insubstantial amount of interstate commerce is affected.³⁶⁷

The Court appears to give two reasons for its hostility. First, the Court appears to have focused on the arrangement's effects on *competition* in the bundled goods market. The Court recalled that bundling practices "deny competitors free access to the market for the tied product, not because the party imposing the tying requirement has a better product or a lower price, but because of his power or leverage in another market."³⁶⁸

³⁶² *International Salt Co. v. United States*, at 396.

³⁶³ *International Salt Co. v. United States*, at 139-140.

³⁶⁴ *Standard Oil Co. v. United States*, concerning exclusive supply contracts for petroleum products between Standard Oil and independent service stations and industrial users.

³⁶⁵ *Standard Oil Co. v. United States*, at 305.

³⁶⁶ It should be noted that the Clayton Act § 3 did not apply because the tying product was land that is not a commodity.

³⁶⁷ *Northern Pacific Railway Co. v. United States*, 356 US 1 (1958), at 5-6.

³⁶⁸ *Northern Pacific Railway Co. v. United States*, at 6.

Second, it expressed some concern about the effects of bundling on *consumers*.³⁶⁹ It objected to the fact that they are forced to "forego their free choice between competing products."³⁷⁰ Of course, any long-term contract restricts in some way the purchaser's freedom of choice, so it seems inappropriate to attribute the concern to this restraint in and of itself. However, the Court appears to have specifically addressed the concern in relation to bundling. Bundling may force buyers to choose differently, thus leading the economy to produce a different mix of goods and services.³⁷¹ This point was explained in greater detail in *Times-Picayune*:

Basic to a faith that a free economy best promotes the public weal is that goods must stand the cold test of competition; that the public, acting through the market's impersonal judgment, shall allocate the Nation's resources and thus direct the course its economic development will take [...] By conditioning his sale of one commodity on the purchase of another, a seller coerces the abdication of buyers' independent judgment as to the 'tied' product's merit and insulates it from the competitive stresses of the open market.³⁷²

Some observations can be made at this point. First, the clear trend was to make bundling illegal with practically no proof of its ill effects. The law prevents a monopolist from bundling two truly separate products, even if the bundle produces no anti-competitive effects or is, on the whole, pro-competitive.³⁷³ This means that plaintiffs did not need to assemble elaborate economic proof of market power or of probable restraint on trade, and the economic justifications of a defendant therefore went unheeded.

Second, the judicial hostility appears to have been a blend of concerns for the effects on both competition and consumers. Apart from the competition effects, the Court's concern seems to have rested on the belief that there is something inherently inferior or undesirable about bundling.³⁷⁴ From this standpoint, bundling would have to be seen akin to tort suits as deceptive advertising or other unfair business actions. This analysis prompts the question of whether antitrust law should deal with these issues regardless of whether they led to any increase in monopoly power in the second market.

³⁶⁹ See Grimes, "The Antitrust Tying Law Schism: A Critique of *Microsoft III* and a Response to Hylton and Salinger", *Antitrust L. J.* 199 (2003), pp. 200-201; and, Craswell, "Tying Requirements in Competitive Markets: The Consumer Protection Issues", *B.U. L. Rev.* 661 (1982), pp. 666-668.

³⁷⁰ *Northern Pacific Railway Co. v. United States*, at 6.

³⁷¹ See Flynn, "Antitrust Protection of the Consumer: Myth or Reality", *Forum* 939 (1978), arguing that consumers are not benefited when forced to buy a product they otherwise would not buy (p. 959).

³⁷² *Times-Picayune v. United States*, at 605.

³⁷³ See Mitchell, *op. cit.*, p. 35.

³⁷⁴ For similar view, see Sullivan, *Handbook of the Law of Antitrust* (St. Paul, 1977), writing that "the hostility to tying embodied in the Act and reflected in the cases may have more to do with notions of appropriate competitive behaviour (conceptions about fair opportunity or access) and with the polar concepts of coercion and free choice, than it has to do with the efficiency or allocation consequences of competitive structure and process" (p. 445). More recently, see Bauer, *op. cit.*, noting that, besides effects on competition, a second effect of "all tie-ins is the deprivation of the buyer's free choice" (p. 300) and, even if economics are right that this effect may not occur, "the buyer may still have his purchasing decisions distorted" by the bundle (p. 301).

Third, some lower courts allow sellers to justify bundles, albeit unlawful *per se*.³⁷⁵ At any rate, even those courts that purportedly allow sellers to justify bundling usually subject such attempts at justification to the strictest scrutiny. Typically, courts have decided that *per se* means what it says.³⁷⁶ Likewise, the Supreme Court has never endorsed the assertion of an affirmative defense to a bundle otherwise deemed *per se* unlawful. Finally, the *per se* test was distilled down to the following elements: (1) a substantial volume of commerce is affected; (2) two distinguishable products are bundled; and (3) the defendant has market power in the bundling product market.

3.4. The evolution to a modified *per se* test

Despite the trend advancing a harsh treatment of bundling, the Supreme Court began to shy away from repudiation of bundling in the 70s and 80s. The case law appears to have shifted to a modified *per se* test. To be sure, the *per se* framework was preserved, but the Court required a more extensive inquiry into the facts surrounding the case and in particular the market power requirement was taken more seriously.³⁷⁷ This shift can undoubtedly be attributed to the influence of the Chicago School.

Although the *per se* approach found an even stricter application in the first of the two *Fortner* decisions, the Court's second decision shows a remarkable change.³⁷⁸ In both cases, U.S. Steel was charged with making attractive advantageous credit facilities for home builders purchasing land on the condition that they also purchase its prefabricated houses. The tying product was credit and the tied good was prefabricated housing.

Fortner I was a review of a summary judgment. The case was remanded to the Supreme Court to determine whether US Steel could be proven to hold economic power in the credit market. The ruling was delivered in 1969. The Court considered the defendant's credit terms sufficiently "unique" to establish market power in the credit market as they were well-below normal market rates.³⁷⁹ It also found that the sales of more than \$ 9 million of prefabricated houses over a three-year period foreclosed

³⁷⁵ *Mozart Co. v. Mercedes-Benz of N. Am. Inc.*, 833 F. 2d 1342 (9th Cir. 1987), entertaining a business justification defense (at 1348-1351).

³⁷⁶ *Fox Motors, Inc. v. Mazda Distribution, Inc.*, 806 F. 2d 953 (10th Cir. 1986), noting that affirmative defences are not available when a bundle is *per se* unlawful (at 957-58).

³⁷⁷ See Lazaroff, *op. cit.*, describing this trend as "the recent retreat from *per se* principles" (p. 113).

³⁷⁸ *Fortner Enters. v. United States Steel Corp. (Fortner I)*, 394 U.S. 495 (1969); and, *United States Steel Corp. v. Fortner Enterprises*, 429 US 610 (1977) (*Fortner II*).

³⁷⁹ *Fortner Enters. v. United States Steel Corp.*, 394 US 495, at 502-503.

a "non insubstantial" part of commerce in the bundled product market.³⁸⁰ It rejected the defendant's attempted justification that its attractive credit terms resulted from economies of scale and reduced risk.³⁸¹

Eight years later, the Court was called in *Fortner II* to review the lower court's ruling that the defendant had sufficient economic power in the credit market. Giving a narrow interpretation of its earlier jurisprudence, it clearly backed away from the rigid *per se* test by performing a detailed economic assessment of the facts. Although the defendant's bundle affected only a small fraction of the total market for prefabricated housing, it found that volume in dollars was sufficient to satisfy the non-insubstantial commerce requirement. The remaining question was whether the defendant had sufficient power in the tying market in order to appreciably restrain competition in the tied market.

The Court considered the price charged for the houses, the number of purchasers affected by the bundle, the character and relation of the two bundled products and the size and profitability of the defendant.³⁸² It concluded that the unusual 100%-financing at low interest offered by US Steel was nothing more than a reflection of its willingness to provide cheap financing in order to sell expensive housing.³⁸³ Absent proof of significant cost advantages or evidence that the defendant could provide different financing than that offered by its competitors would not be the kind of uniqueness constituting a Sherman Act § 1 violation.

At first blush, the result of *Fortner II* appears to be consistent with earlier precedents. On other hand, it could be argued that 'money' is a fungible commodity, distinguishable, for instance, from a patented machine, copyrighted film, or strategically located land. Moreover, consumer preferences for 100-percent financing was evident, as was the creation of a number of bundles. These factors were important in earlier cases but seemed to be unpersuasive in this case. The Court's attitude of increased tolerance for bundling and a subtle departure from automatic *per se* illegality underscored a gradual shift in the legal doctrine.³⁸⁴

³⁸⁰ *Fortner Enters. v. United States Steel Corp.*, 394 US 495, at 502.

³⁸¹ *Fortner Enters. v. United States Steel Corp.*, 394 US 495, at 507.

³⁸² *United States Steel Corp. v. Fortner Enterprises*, 429 US 610, at 617-620.

³⁸³ *United States Steel Corp. v. Fortner Enterprises*, 429 US 610, noting that "if the evidence merely shows that credit terms are unique because the seller is willing to accept a lesser profit or to incur greater risks than its competitors, that kind of uniqueness will not give rise to any inference of economic power in the credit market" (at 621-622).

³⁸⁴ See Lazaroff, *op. cit.*, writing that the Court seemed to "turn the clock back to the earliest days of tie-in analysis and signal a departure from a *per se* approach and a rejuvenation of a more careful inspection of the anticompetitive effects of a tie" (p. 114-115).

A further entrenchment of the *per se* test became strikingly evident in *Jefferson Parish*.³⁸⁵ The case involved bundling of surgery services with anesthesiological services. Patients wanting an operation in East Jefferson Hospital were required to use the hospital's anesthesiological services. The defendant alleged that bundling the two services reduced costs and improved quality. The Supreme Court unanimously held that the defendant's practice did not violate Sherman Act § 1, but the judges could not agree on why.³⁸⁶ Although noting that bundling could be pro-competitive³⁸⁷, the Court's majority reiterated that "[i]t is far too late in the history of our antitrust jurisprudence to question the proposition that *certain* tying arrangements pose an unacceptable risk of stifling competition and therefore are unreasonable *per se*."³⁸⁸

For the first time, it referred to 'certain tying arrangements' being caught by the *per se* test. These words suggest that *not all* bundling falls under the test.³⁸⁹ This reading is confirmed by the Court's statement that "[n]ot every refusal to sell two products separately can be said to restrain competition."³⁹⁰

As for the facts, the Court's analysis considered in detail the actual economic effects of the bundling arrangement. The Court found that the hospital did indeed bundle the sale of two separate products together, based on consumer's separate demand for them.³⁹¹ Like *Fortner II*, it insisted upon proof of sufficient market power in the tying market.³⁹² However, it found that the hospital lacked sufficient market power to adversely affect competition in the market for anesthesiological services, as it attracted merely 30 percent of the patients in its district.³⁹³ Without the necessary market power, Jefferson Parish thus avoided bundling liability.

Closely related to the inquiry into Jefferson Parish's market power, the Court emphasised that whether consumers are forced to accept the bundle due to the hospital's market power should also be

³⁸⁵ *Jefferson Parish Hospital District No. 2 v. Hyde*, 466 US 2 (1984). See Kramer, *op. cit.*, describing *Jefferson Parish* as "another swing in judicial attitude on the validity of tying arrangements" (p. 1063).

³⁸⁶ Notably, 4 judges favoured the rule of reason test, while the majority applied the conventional *per se* test. See *Jefferson Parish Hospital District No. 2 v. Hyde*, at 35-44.

³⁸⁷ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 19.

³⁸⁸ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 14 (emphasis added).

³⁸⁹ For similar conclusion, see *United Shoe Machinery Corp. v. United States*, at 457.

³⁹⁰ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 19.

³⁹¹ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 22-23.

³⁹² *Jefferson Parish Hospital District No. 2 v. Hyde*, recognising that generally "application of the *per se* rule focuses on the probability of anticompetitive consequences" (at 15-16).

³⁹³ *Jefferson Parish Hospital District No. 2 v. Hyde*, noting that "[s]eventy per cent of the patients residing in Jefferson Parish enter hospitals other than East Jefferson [...]" thus East Jefferson's dominance over persons residing in Jefferson Parish is far from overwhelming" (at 20-21).

considered.³⁹⁴ The Court's analysis was predominantly ajar to whether consumers were harmed by the arrangement by stating that the "per se prohibition is appropriate if anticompetitive forcing is likely."³⁹⁵

The Court stressed that if patients were forced to purchase the anesthesiological services because of "a result of the hospital's market power would the arrangement have anticompetitive consequences. If no forcing is present, patients are free to enter a competing hospital and to use another anesthesiologist."³⁹⁶ Again, the Court appears to have been concerned with the consumers' choice. Ultimately, it held that this type of coercion was not present. It stated that "[t]here is no evidence that the price, the quality, or the supply or demand for either the 'tying product' or the 'tied product' involved in this case has been adversely affected."³⁹⁷

3.5. *Microsoft* and its call for an unstructured rule of reason test

Formally, the law of bundling is easy to state. If a seller has any appreciable market power in the market for the bundling good, and if the arrangement affects more than an insignificant amount of commerce in the market for the bundled good, the arrangement violates antitrust law. Of course, this formal statement of law masks a good deal of complexity. Measuring the degree of market power or the amount of commerce affected is not always easy.

The examination of the case law shows that the Supreme Court requires an increasingly detailed economic analysis of these requirements. Many other issues may emerge. For instance, does the 'bundle' really involve the sale of two separate products, or are the two items in fact an integrated product? Or, how does the *per se* test deal with possible pro-competitive bundles? These issues were already somewhat at hand in the earlier case law, but came under the spotlight particularly in *Microsoft*.³⁹⁸

³⁹⁴ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 16.

³⁹⁵ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 16. The Court's focus on purchaser's choice was also illustrated when it explained that "when a purchaser is forced to buy a product he would not have otherwise bought even from another seller in the tied product market, there can be no adverse impact on competition because no portion of the market which would otherwise have been available to other sellers has been foreclosed."

³⁹⁶ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 21-22.

³⁹⁷ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 31.

³⁹⁸ For interesting reviews, see Creve, "US versus Microsoft: Wie Won Wat? Een Overzicht van het Amerikaanse Hoofdstuk van de Microsoft saga", SEW 43 (2004); Cohen, "Surveying the Microsoft Antitrust Universe", Berkeley Tech. L. J. 333 (2004); Langer, "De Microsoft-zaak: de Schikking Tussen het Amerikaanse Ministerie van Justitie en Microsoft", AM 28 (2003); Areeda and Hovenkamp, *op. cit.*, pp. 1189-1223; Stocky and Levary, "Windows XP: Another Court Battle for Microsoft?", J. Marshall J. Computer & Info. L. 193 (2002); Baker, "Lessons From Microsoft", Sedona Conf. J. 41 (2001); Geier, "United States v. Microsoft", Berkeley Tech. L. J. 297 (2001); and, Evans *et al.*, *Did Microsoft Harm Consumers? Two Opposing Views* (Washington, 2000).

3.5.1. Microsoft I

In 1994, the DoJ filed a complaint claiming that Microsoft's practices with Original Equipment Manufacturers ("OEMs") were exclusionary and anti-competitive. It was claimed that Microsoft hindered its rivals by: (1) requiring computer manufacturers 'per processor' payments regardless of whether Microsoft's operating system was included in a computer; (2) using long-term contracts that magnified the exclusionary effect of other requirements; and, (3) imposing unnecessarily restrictive non-disclosure requirements on application developers that precluded them from working with competitors. Their purpose, claimed the DoJ, was to maintain its monopoly in the Windows market. The DoJ and Microsoft settled the case by entering in a conduct-oriented consent decree.³⁹⁹

The decree prohibited Microsoft from, among other things, calculating its licensing fees based on the number of personal computers a manufacturer ships and requiring OEMs to take any other software product as a condition of their license for Windows. The consent decree was widely criticised as being too weak.⁴⁰⁰ The consent decree also included an anti-bundling provision. The decree stated in § IV (E) that "Microsoft shall not enter into any License Agreement in which the terms of that agreement are expressly or impliedly conditional upon: (i) the licensing of any other Covered Product, Operating System Software product, or other product (provided, however, that this provision in and of itself shall not be construed to prohibit Microsoft from developing integrated products); or (ii) the OEM not licensing, purchasing, using or distributing any non-Microsoft product." In retrospect, it is clear that the 'integrated product' caveat would eventually lead to conflict, given the inherent difficulties of determining whether a bundle is one integrated product or two bundled items.

3.5.2. Microsoft II

In 1997, the DoJ alleged that Microsoft's technological and contractual bundling of Internet Explorer ("IE") 3.0 and 4.0 with Windows 95 was in violation of § IV (E) of the 1995 consent decree. Microsoft supplied Windows 95 and IE 3.0 on the same disk, and the former would not function unless the latter was also installed.⁴⁰¹ Once IE was installed, its eventual deletion would disable the operating system.

³⁹⁹ *United States v. Microsoft*, 56 F.3d 1448 (D.C. Cir. 1995) (*Microsoft I*).

⁴⁰⁰ For instance, see Baseman *et al.*, "Microsoft Plays Hardball: The Use of Exclusionary Pricing and Technical Incompatibility to Maintain Monopoly Power in Markets for Operating System Software", *Antitrust Bull.* 265 (1995), observing that "the remedies prescribed in the consent decree are likely to be inadequate" (p. 299).

⁴⁰¹ *United States v. Microsoft*, 147 F.3d 935 (D.C. Cir. 1998) (*Microsoft II*), at 940-941.

Later, the bundle became contractual in nature, as Microsoft required OEMs to purchase IE 4.0 that was supplied separately as a condition of licensing Windows 95. Microsoft relied on the 'integrated product' caveat to argue that any time it added a feature to the operating system it was creating a new product.

Interpreting the decree, the Court of Appeals found that the bundles of Windows 95 and IE 3.0 and 4.0 did not offend it but instead fell within its explicit exception for "integrated products."⁴⁰² The combination of IE and Windows, observed the Court, appears to have produced benefits not available if, for instance, Windows 95 were combined with Netscape's browser.⁴⁰³ The Court rejected Judge Wald's dissenting contention that the test applied gave Microsoft boundless discretion to bundle other products with its Windows system.⁴⁰⁴ A "plausible claim" that integration of two items was beneficial, the Court insisted, would establish that Windows 95 and IE were not simply "bolted together" for the purpose of injuring competition, but advantageous for consumers.⁴⁰⁵ While the Court remanded the case to the District Court, it clearly signalled its own belief that the benefits were present.⁴⁰⁶

Described as a "major victory for Microsoft"⁴⁰⁷ in the press, a consensus immediately formed that the Court of Appeals had given the DoJ a serious setback in its efforts to enforce the 1995 decree. Wrongly, it was also assumed that the decision would constitute an important precedent for bundling law in general.⁴⁰⁸ This becomes clear in the third stage of the *Microsoft* saga.

⁴⁰² *Microsoft*, 147 F.3d 935, at 945-953.

⁴⁰³ *Microsoft*, 147 F.3d 935, at 950-951.

⁴⁰⁴ *Microsoft*, 147 F.3d 935, at 952.

⁴⁰⁵ *Microsoft*, 147 F.3d 935, noting that "the limited competence of courts to evaluate high-tech product designs and the high cost of error should make them wary of second guessing the claimed benefits of a particular design decision" (at 950).

⁴⁰⁶ *Microsoft*, 147 F.3d 935, expressing the "tentative view" that the bundle was a "genuine" integration (at 952-953).

⁴⁰⁷ See Biester, "What Lessons Result from the Appeals Court in Microsoft Case?", *Legal Intelligencer* (2 July 1998), p. 7.

⁴⁰⁸ See Flaherty, "DOJ's Microsoft Strategy Gutted", *The Recorder* (24 June 1998), writing that "[t]he court has held that product design and integration is effectively exempt from tie-in claims" (p. 1); and, Corcoran, "Microsoft Scores a Court Victory in Fight with Justice", *Washington Post* (24 June 1998), noting that "[l]egal experts said the ruling would force Justice to rework the strategy in its broader antitrust case against Microsoft's next version, Windows 98, which bundles the operating system more tightly with the browser" (p. C09).

3.5.3 Microsoft III

3.5.3.1. Introductory remarks and facts

In 1998, the DoJ and a group of nineteen state plaintiffs filed a new antitrust suit against Microsoft.⁴⁰⁹ The plaintiffs alleged four types of antitrust violations: unlawful exclusive-dealing arrangements and unlawful bundling in violation of Sherman Act § 1, and unlawful monopoly maintenance and attempted monopolization in violation of Sherman Act § 2. The accusations sprang from Microsoft's efforts to maintain its monopoly in operating system market by destroying threats posed by Netscape Navigator and a cross-platform programming language, Sun Java. Both Navigator and Java are so-called 'middleware software.'

These programs can serve as platforms for other software applications. Operating systems are characterised by network effects. This means that computer users want an operating system that will permit them to run all the applications they wish to use and that developers tend to write applications for the most popular operating system. Microsoft's high market share has led to even more applications being written for Windows, and so on.

Such positive feedback, or the 'applications barrier to entry,' has made it difficult or impossible for rival operating systems to compete effectively with Microsoft by gaining more than a niche market.⁴¹⁰ Since the triumph of Windows 95, roughly 90% of the operating systems were installed on PCs. Indeed, as this suggests, Microsoft has monopoly power in Windows. To the extent that middleware itself exposes programming interfaces for applications, it supports applications independent of Windows. By lessening reliance on Windows, it poses a direct threat to Windows.⁴¹¹

Microsoft responded to this threat by adopting a strategy aimed at extending its dominance over Windows to Internet browsers in order to protect the application. In 1995, Microsoft tried to convince Netscape not to release a version of its browser that would act as an applications platform.⁴¹² When Netscape refused, Microsoft allegedly decided to reduce Netscape's share of the browser market by making IE number one in the market. In order to do so, it pursued a number of strategies, including

⁴⁰⁹ *United States v. Microsoft*, 87 F.Supp. 2d 30 (D.D.C. 2000).

⁴¹⁰ See Fisher and Rubinfeld, "United States v. Microsoft: An Economic Analysis", in: Evans *et al.*, *op. cit.*, pp. 10-11.

⁴¹¹ *United States v. Microsoft*, 87 F.Supp. 2d 30, at 39-44.

⁴¹² See Fisher and Rubinfeld, in: Evans *et al.*, *op. cit.*, p. 16. It should be noted that Microsoft also engaged in similar conduct with Intel and Apple (pp. 16-18).

entering into exclusive-dealing contracts with OEMs and Internet Access Providers, and pressuring Apple to stop using Netscape. It is important to emphasise that Microsoft made the decision to bundle IE and Windows even though there is demand for browsers separate from demand for operating systems and IE was not originally tied with the retail version of Windows 95 when it was first released.⁴¹³ The DoJ claimed that the contractual and technological bundles of Windows 95/IE 3.0 and Windows 98/IE 4.0 were illegal.

3.5.3.2. The judgment by the District Court

On the issue of bundling, in 2000 the District Court found that Microsoft's bundle of Windows 95 and 98 with IE had violated *per se* Sherman Act § 1.⁴¹⁴ It found that bundling both prevented OEMs from pre-installing other browsers and deterred consumers from using them.⁴¹⁵ The key acts constituting illegal bundling were that: (1) Microsoft required licensees of both Windows 95 and 98 to license IE at a single price; (2) it refused to allow OEMs to uninstall or remove IE from the Windows desktop; (3) it designed Windows 98 in a way that withheld consumers the ability to remove IE by use of the 'Add/Remove Programs' utility; and, (4) it designed Windows 98 to override the user's choice of default web browser in certain circumstances. On the surface, as Meese noted, the government appears to have an easy case.⁴¹⁶

The District Court Judge Jackson applied a four-part test.⁴¹⁷ Keeping with *Jefferson Parish*, he concluded that browsers and operating systems are separate products because they are "distinguishable in the eyes of buyers" and there is separate demand for each product.⁴¹⁸ He found that Microsoft mandated OEMs install IE on all new computers to the licensing agreement. Microsoft was also found to have refused licenses to OEMs for Windows distribution unless they agreed not to remove

⁴¹³ *United States v. Microsoft*, 84 F.Supp. 2d 9 (D.D.C. 1999) (Finding of Fact). The District Court found, "[m]any consumer desire to separate their choice of a Web browser from their choice of an operating system" (at 152) and "[m]oreover, many consumers who need an operating system, including a substantial percentage of corporate consumers, do not want a browser at all" (at 152).

⁴¹⁴ *United States v. Microsoft*, 87 F.Supp. 2d 30, at 47-51.

⁴¹⁵ The Court of Appeals summarised in *United States v. Microsoft*, 253 F.3d 34 (D.C. Cir. 2001) that this licensing practice would increase OEM's product testing costs because "OEM[s] must test and train support staff to answer calls related to every product preinstalled on the machine" (at 64). Furthermore, "pre-installing a [second] browser in addition to IE would to many OEMs be a questionable use of the scarce [but] valuable space on a PC's hard drive" (at 65).

⁴¹⁶ See Meese, "Monopoly Bundling in Cyberspace: How Many Products Does Microsoft Sell?", *Antitrust Bull.* 65 (1999), p. 68.

⁴¹⁷ *United States v. Microsoft*, 87 F.Supp. 2d 30, stating the test applied: (1) two separate products are involved; (2) the defendant affords its customers no choice but to take the tied product in order to obtain the tying product; (3) the arrangement affects a substantial volume of commerce; and, (4) the defendant has market power in the tying product market (at 47).

⁴¹⁸ *United States v. Microsoft*, 84 F.Supp. 2d 9, at 152 and *United States v. Microsoft*, 87 F.Supp. 2d 30, at 50.

IE icons from the Windows desktop. As for consumers, he held that Microsoft had forced consumers to acquire IE with the purchase of Windows because they were unable to remove IE, even if they so desired. Ignoring Microsoft's claim that IE was included at no charge, he observed that Microsoft forced customers to "pay" for the bundled product.⁴¹⁹ Although other firms also bundled browsers and operating systems, Microsoft was the only vendor not to give OEMs the option to sell a browser-less version of Windows. After holding Microsoft that had a monopoly in the operating system market, the Court applied the conclusion in *Fortner II* that market power is the ability to tie products together.⁴²⁰

According to Judge Jackson, the bundle foreclosed a substantial amount of commerce to competitors because Navigator's usage share and revenues dropped significantly from 1995 to 1998. Playing down the importance of these figures, Microsoft asserted that its anti-competitive practices do not result in foreclosure, as users could download browsers for free from the Internet.⁴²¹ It is important to remember that users prefer to get their browsers installed on their computers, considering they pay in terms of time and trouble to download a browser. Indeed, Microsoft's own studies demonstrate that most Internet users have never downloaded a browser.⁴²² Judge Jackson also emphasised Microsoft's intent being a "deliberate and purposeful choice to quell incipient competition before it reached truly minatory proportions."⁴²³ In conclusion, he held that Microsoft's bundle infringed the Sherman Act §1.

3.5.3.3. The ruling of the Court of Appeals

The Court of Appeals' most provocative holding concerned bundling.⁴²⁴ Confronting the question whether the Windows-IE bundle concerned one or two products, the Court of Appeals faced a situation in which the rationale of the relevant precedent was no longer supported by current economic insights. Noting that "not all ties are bad", it relied upon economic theory for the idea that bundling can produce efficiencies.⁴²⁵ It stressed that *Jefferson Parish* cannot always differentiate between pro-competitive and anti-competitive bundles.⁴²⁶ As a result, it overturned the District Court's holding that Microsoft's

⁴¹⁹ *United States v. Microsoft*, 87 F.Supp. 2d 30, at 50.

⁴²⁰ *United States v. Microsoft*, 87 F.Supp. 2d 30, at 37.

⁴²¹ See Evans and Schmalensee, "Be Nice to Your Rivals: How the Government Is Selling an Antitrust Case Without Consumer Harm in *United States v. Microsoft*", in: Evans *et al.*, pp. 77-79.

⁴²² See Fisher and Rubinfeld, in: Evans *et al.*, *op. cit.*, stressing that "[w]hat is important is not whether users can download a competitor's browser, but whether users *will* download a competitor's browser under prevailing market conditions" (pp. 36-37) (emphasis authors).

⁴²³ *United States v. Microsoft*, 87 F.Supp. 2d 30, at 51.

⁴²⁴ *United States v. Microsoft*, 253 F.3d 34 (D.C. Cir. 2001).

⁴²⁵ *United States v. Microsoft*, 253 F.3d 34, at 87.

⁴²⁶ *United States v. Microsoft*, 253 F.3d 34, at 84.

bundling practice was illegal and announced a new legal standard for situations "involving platform software products."⁴²⁷

Rather than judging Microsoft's behaviour under the *per se* modified test, it posited that the case should be decided under the rule of reason test. In order to condemn Microsoft's conduct, the Court suggested the plaintiffs would have to demonstrate that "Microsoft's conduct unreasonably restrained competition."⁴²⁸ At the same time, it explicitly refused to find that the Windows-IE bundle was "welfare-enhancing" or that it "absolved [Microsoft] of tying liability."⁴²⁹

The Court justified its special exception to the Supreme Court's regime by referring to the general case law on the applicability of *per se* tests. The purpose of a *per se* test is to avoid spending judicial resources in cases involving behaviour that "are presumed to be unreasonable" because of their "pernicious effect on competition and lack of any redeeming virtue."⁴³⁰ The Court stressed that such a presumption can only be made once courts have had "considerable experience with certain business relationships."⁴³¹ It concluded that "technological integration of added functionality into software that serves as a platform for third-party applications" is not a business relationship as such.⁴³² It also held that the rule of reason test is essential because bundling in software markets produces efficiencies that courts are not yet trained to recognise and that are not accompanied for by the *per se* rule.⁴³³

Ultimately, the Court required that an unstructured rule of reason test would be applied on remand. First, the plaintiffs must show that Microsoft's behaviour "unreasonably restrained competition."⁴³⁴ Second, Microsoft may, of course, offer pro-competitive justifications. Third, it is the plaintiffs' burden to show that the anti-competitive effect of the behaviour outweighs the benefit. They must prove that "Microsoft's conduct was, on balance, anticompetitive."⁴³⁵ The DoJ decided not to pursue the bundling claim. As a result, the claim was left open. This was also confirmed by Judge Kollar-Kotelly, who approved the settlement negotiated with Microsoft. Notably, she made it clear that the settlement could not be

⁴²⁷ *United States v. Microsoft*, 253 F.3d 34, at 84.

⁴²⁸ *United States v. Microsoft*, 253 F.3d 34, at 95.

⁴²⁹ *United States v. Microsoft*, 253 F.3d 34, at 89.

⁴³⁰ *Northern Pacific Railway Co. v. United States*, at 5.

⁴³¹ *United States v. Microsoft*, 253 F.3d 34, at 84.

⁴³² *United States v. Microsoft*, 253 F.3d 34, at 84.

⁴³³ *United States v. Microsoft*, 253 F.3d 34, at 93.

⁴³⁴ *United States v. Microsoft*, 253 F.3d 34, at 96.

⁴³⁵ *United States v. Microsoft*, 253 F.3d 34, at 96.

interpreted as a "form of absolutism for Microsoft from any liability for the illegal tying of two distinct products based upon the design of its Windows operating system product."⁴³⁶

4. The separate-product issue

As a matter of law, bundling may exist when two separate products are bundled together.⁴³⁷ The separate-product issue is at first blush deceptively simple. However, as *Fortner II* accurately notes, "[t]here is at the outset of every tie-in case [...] the problem of determining whether two separate products are in fact involved."⁴³⁸ The Supreme Court can surely be criticised for not articulating a satisfactory legal standard for evaluating this key question.⁴³⁹ The Court has explicitly addressed the issue, but has never set forth any criteria that could be universally applied.

Times-Picayune is symptomatic of this observation.⁴⁴⁰ In this case, the defendant required anyone wishing to place an advertisement in its morning newspaper to also place an advertisement in its evening paper. Without explanation, the Supreme Court opined that advertising in both newspapers was all part of a single product, namely readership.⁴⁴¹ As a result, the lack of a clear standard led lower courts to adopt a patchwork of inconsistent tests.

Essentially, the separate-product issue is, as Sidak elegantly writes, "the linchpin of antitrust jurisprudence."⁴⁴² If the defendant can show that two products do not exist, the remaining elements of the analysis evaporate. This observation must be read in conjunction with the modified *per se* test. The analysis of bundling has been overinclusive for quite some time. It voided any bundle of separate products, even those that were competitively neutral or beneficial. Many lower courts tempered the overinclusiveness through *manipulation* of the separate-product question.⁴⁴³ They folded into the

⁴³⁶ *New York v. Microsoft Corp.*, 224 F. Supp. 2d 76 (D.D.C. 2002); and, *United States v. Microsoft Corp.*, F. Supp. 2d 2002 WL 31439450 (D.D.C. 2002).

⁴³⁷ See Mitchell, *op. cit.*, noting that "[t]he American Courts have made an important qualification [...] in insisting that the tying product and the tied product be different products" (p. 10).

⁴³⁸ *Enterprise Inc. v. US Steel Corp.*, 395 US 495, at 507.

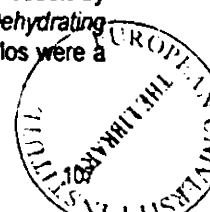
⁴³⁹ *N.W. Controls, Inc. v. Outboard Marine Corp.*, 333 F. Supp. 493 (D. Del. 1971), stating that "[antitrust] decisions and literature contain astonishingly little discussion of the criteria to be applied to distinguish between component parts of a single product and a multiplicity of products" (at 501).

⁴⁴⁰ *Times-Picayune v. United States*.

⁴⁴¹ *Times-Picayune v. United States*, at 613-614.

⁴⁴² See Sidak, *An Antitrust Rule for Software Integration* (Yale paper, 2001), p. 20.

⁴⁴³ *Hirsh v. Martindale-Hubbell, Inc.*, 674 F.2d 1343 (9th Cir. 1982), determining whether two items were separate products by asking "whether the aggregation serves to facilitate services by promoting product quality" (at 1347-1348); and, *Dehydrating Process Co. v. A.O. Smith Corp.*, 292 F.2d 653 (1st Cir. 1961), holding that mechanical unloaders and storage silos were a single product and "beyond antitrust scrutiny" (at 655-656).



question the issue whether or not the tie under investigation created significant efficiencies.⁴⁴⁴ In doing so, courts saw commonly perceived separate items as a bundle.

The US courts and academics have since proposed a range of tests to help distinguish between two products. These tests fall into five major categories: (1) simple-product test; (2) consumer-demand test; (3) the technological-integration test; (4) market-practices test; and, (5) economic-measurement test.⁴⁴⁵ Ultimately, this section proposes a multi-factor proxy test.

4.1. The simple-product test

Some courts decided that separate products existed with little or no analysis. Their simple-product test primarily centres on intuition. For instance, the early patent and antitrust cases involved products that were intuitively separate: copying machines and ink⁴⁴⁶, projectors and motion pictures⁴⁴⁷, tabulating machines and punch cards⁴⁴⁸, salt-dispensing machines and salt⁴⁴⁹, or land and transport services.⁴⁵⁰ The courts did not elaborate on why products were separate, even though the individual results of their analyses make sense.

In later cases, courts decided whether two allegedly tied items really constitute a single product by way of simple logic. In *Automatic Radio*, the court held that “bumpers, hang-on fender lights of automobiles, outside auto trunks and luggage racks [...] became parts of automobiles and lost their identities as accessories,” while “radios have retained their identity as separate products” from cars.⁴⁵¹ Although the court gave no analysis supporting this conclusion, its result makes sense. While apparently sold separately at one time, the uniform competitive market practice became bundling bumpers, lights and trunks into cars. A blanket single-product conclusion was thus appropriate. By contrast, car radios were

⁴⁴⁴ See Hovenkamp, *op. cit.*, noting that “creative courts have manipulated the judicial test so as to distinguish efficient from inefficient forces sales” (p. 366); and, Frey, *op. cit.*, writing that “[d]ie fehlende Eindeutigkeit für die Abgrenzung [...] provociert die Gefahr der Verlagerung des Streites über die Legalität von Koppulungsverträgen auf die Tatbestandsebene” (p. 17).

⁴⁴⁵ Some terminology used is borrowed from Weinstein, “Bundles of Trouble: The Possibilities for a New Separate-Product Test in Technological Tying Cases”, *Cal. L. Rev.* 903 (2002), pp. 918-935; and, Anlauf, *op. cit.*, pp. 502-505.

⁴⁴⁶ *Cortelyou v. Carter's Ink Co.*, 118 Fed. 1022 (S.D.N.Y. 1902).

⁴⁴⁷ *Motion Picture Patents Co. v. Universal Film Manufacturing Co.*

⁴⁴⁸ *IBM v. United States*.

⁴⁴⁹ *International Salt Co. v. United States*.

⁴⁵⁰ *United States Steel Corp. v. Fortner Enterprises*, 429 U.S. 610.

⁴⁵¹ *Automatic Radio Mfg. Co. v. Ford Motor Co.*, 272 F. Supp. 744 (D.Mass. 1967), *aff'd*, 390 F.2d 113 (1st Cir. 1968), *cert. denied*, 391 US 914 (1968), at 748.

often sold unbundled and the very defendant sold cars "without radios and radios without automobiles."⁴⁵²

Although the courts' intuitive conclusions may often match those that would be drawn from more directed analyses, the simple-product test as general policy should be rejected. First, intuition may dispose of many cases because potential plaintiffs rarely challenge strong, widely-held intuitions about what constitutes a product bundle. Such intuitions generally reflect what is customary, and those customs generally manifest whether the market has offered the products separately or as a bundle. This does not necessarily mean that a bundle is efficient, or, on balance, pro-competitive.

Second, as the factual premises relied upon are obscure, judgments are more likely to be based on erroneous assumptions about the underlying facts. For these reasons, intuitive rulings are less likely to offer the necessary predictability for business planning and compliance. To be sure, the simple-product analysis can be a first indication of a competition problem, but a more sophisticated inquiry is necessary for actual intervention.

4.2. The consumer-demand test

Jefferson Parish was the first to offer an extensive discussion of product definition. Instead of instinctively determining whether there is a one-single product, the Supreme Court held that the question whether or not two products were involved did not turn "on the functional relation between them, but rather on the character of demand for the two items."⁴⁵³ Under the aforementioned test, courts should rely on one, single factor: establishing whether there is sufficient demand for the individual items.⁴⁵⁴ The fact that linking surgery services and anesthesiologist services in *Jefferson Parish* can make sense from the provider's point of view or from an efficiency point is irrelevant if there is separate demand.⁴⁵⁵ The actual application of the test was fairly simple. The Court noted that there was "ample [...] testimony that patients or surgeons often request specific anaesthesiologists to come to the

⁴⁵² *Automatic Radio Mfg. Co. v. Ford Motor Co.*, at 748.

⁴⁵³ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 19.

⁴⁵⁴ For a different view, see Woodrow De Vries, "United States v. Microsoft", *Berkeley Tech. L. J.* 303 (1999), stressing that *Jefferson Parish* looks at consumer demand and market structure as the primary means of distinguishing between products (p. 311).

⁴⁵⁵ *Jefferson Parish Hospital District No. 2 v. Hyde*, concluding that "[I]n this case, no tying arrangement can exist unless there is a sufficient demand for the purchase of anesthesiologist services separate from hospital services to identify a distinct product market in which it is efficient to offer separately from hospital services" (at 21).

hospital."⁴⁵⁶ This fact was sufficient to show that separate demand existed for anaesthesiology and therefore, that anaesthesiology and surgery were two products rather than one.

The Supreme Court expanded upon the test in *Kodak*.⁴⁵⁷ In that case, the question was whether the parts and services used to repair copiers were separate products. Kodak argued that parts and services were not distinct products because there was no demand for parts separate from services.⁴⁵⁸ In making this assertion, Kodak relied on an argument similar to the one made by Judge O'Connor in her concurrence in *Jefferson Parish*.⁴⁵⁹ There, O'Connor had argued that anesthesia and surgery must not be considered separate products because "[p]atients are interested in purchasing anesthesia only in conjunction with hospital services."⁴⁶⁰

Taking the Chicago approach, O'Connor's argument was based on the single-monopoly rent theorem. Judge O'Connor argued that the link between the two services involved would affect neither the amount of anesthesia provided nor the combined price of surgery and anesthesia. The Court rejected both Kodak's justification and Judge O'Connor's argument. It responded to these points by noting that "[b]y that logic, we would be forced to conclude that there can never be separate markets [...] for cameras and film, computers and software."⁴⁶¹ As a consequence, the Court held that there is no reason to deny the existence of a bundle between "two functionally linked products", even when one of them "is useless without the other."⁴⁶²

The type of evidence relied upon in *Jefferson Parish* and *Kodak* is instructive. In both instances, the Court looked at evidence of *actual* market practices rather than engineering models, cost accounting techniques or presumptions based on economic theory. In *Jefferson Parish*, it noted that the hospital billed the anesthesiological services separately from its other services.⁴⁶³ The hospital's own anesthesiologist reinforced this fact by testifying that consumers do in fact "differentiate between hospital services and anesthesiological services, and request specific anesthesiologists."⁴⁶⁴ In *Kodak*,

⁴⁵⁶ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 22.

⁴⁵⁷ *Eastman Kodak Co. v. Image Technical Services*, 504 U.S. 451.

⁴⁵⁸ *Eastman Kodak Co. v. Image Technical Services*, at 463.

⁴⁵⁹ *Eastman Kodak Co. v. Image Technical Services*, at 463.

⁴⁶⁰ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 43.

⁴⁶¹ *Eastman Kodak Co. v. Image Technical Services*, at 463.

⁴⁶² *Eastman Kodak Co. v. Image Technical Services*, at 463.

⁴⁶³ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 23.

⁴⁶⁴ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 23, n. 36.

the Court relied on the fact that the defendant sold service and parts separately in the past and continued to sell parts separately to customers who serviced their own equipment.⁴⁶⁵

Leading US scholars have endorsed the consumer-demand test to the single-product question.⁴⁶⁶ It has been argued that the consumer-demand test is relatively simple in determining whether the bundle at issue produces significant efficiencies. As the District Court explained in *Microsoft III*, the logic is that separate demand for products will exist when the benefits of product choice outweigh the efficiencies of product integration.⁴⁶⁷ Where firms with no market power commonly sell the items in question separately, a common and properly established presumption that unbundled sale of the items is efficient arises. On the other hand, where all such firms bundle, the combination must reflect cost savings when compared to separate provision.⁴⁶⁸

However, it is doubtful whether the test is an effective proxy in all cases. It has some deficiencies. First, although the absence of demand for individual items in a competitive market is sufficient to show that bundling can produce efficiencies, it is by no means necessary. Instead, bundling may reduce costs faced by some firms but not those faced by others. In the latter situation, the test will nonetheless lead to the conclusion that two products are involved.

Second, the test is a one-single factor analysis. It drastically limits the amount of useful information available to a court in making a difficult determination. Although consumer demand is relevant, manufacturers also have useful information to disclose. For instance, they can recognise efficiencies that consumers cannot yet see because they are not knowledgeable. This shortcoming increases in relation to the technical sophistication of the bundle. The test also fails to consider the functionality of the product itself. For instance, evidence that two products need to be sold as a bundle in order to function properly must be crucial to the analysis.

⁴⁶⁵ *Eastman Kodak Co. v. Image Technical Services*, at 462.

⁴⁶⁶ See Lam, "Revisiting The Separate Products Issue", Yale L. J. 1441 (1999), writing that *Jefferson Parish* provides "a clear standard for judges to follow" (p. 1448); Hawker, "Consistently Wrong: The Single Product Issue And The Tying Claims Against Microsoft", Cal. W. L. Rev. 1 (1998), noting that current antitrust doctrine "leaves the determination of a single product issue where it belongs, in the hands of consumers" (p. 39); and, Strasser, "An Antitrust Policy for Tying Arrangements", Emory L. J. 253 (1998), writing that "[the consumer demand test] is consistent with tying law's goal of avoiding foreclosure and entry barriers. Defining product markets by buyer demand will direct attention to whether any competitive harms are occurring" (p. 257).

⁴⁶⁷ *United States v. Microsoft Corp.* (D. C. Cir. 2001), stating that the *Jefferson Parish* test is a "proxy" for net efficiency" (at 88).

⁴⁶⁸ See Hovenkamp, *op. cit.*, noting that "if the arrangement is efficient, then we would expect it to be ubiquitous" (p. 360).

The third criticism echoed is that consumer perceptions are a poor standard in technologically dynamic markets.⁴⁶⁹ Such markets tend to have four defining characteristics: strong economies of scale; the tendency toward lock-in effect for successful technologies; and, the tendency toward rapid technological change.⁴⁷⁰ When a market is in constant flux due to the high rate of innovation, it is difficult and sometimes misleading to decide whether a product is entirely new, one product, or two items bundled together.⁴⁷¹ Gastle and Boughs succinctly argue that the “mechanistic nature” of the test is such that even the open source solutions are “vulnerable” to constituting bundling.⁴⁷²

Arguably, this is bad policy given the open source’s gift culture and lack of traditional managerial control. A final point is that consumers may not always be able to correctly evaluate the efficiencies of a particular product. Mariotti stresses that consumer perceptions are significantly affected by marketing and packaging. There is the risk that consumers will believe that products are not separate simply because the supplier *promotes* an integration of the two as a unified product.⁴⁷³ In this way, the consumer perceptions standard provides, for instance, an incentive for Microsoft to run lots of advertisements that portray the Windows/IE bundle as a single product. “Legal standards,” Mariotti notes acutely, “should not be based on upon advertising campaigns.”⁴⁷⁴

In my view, the Court of Appeals in *Microsoft III* has voiced some of these concerns. Noting the “poor fit between the separate products test and the facts of this case,” the Court pointed out the possibility that the consumer-demand test may not be able to identify all efficiency-enhancing bundles and that it therefore has the potential to deter innovation.⁴⁷⁵ It held that this risk is particularly high in the context of “newly integrated products.”⁴⁷⁶

In conclusion, the consumers’ view is pertinent but it has limited value as a single factor.

⁴⁶⁹ See Katz and Shapiro, “Antitrust in Software Markets”, in: Eisenach and Lenard (eds.), *Competition, Innovation and the Microsoft Monopoly: Antitrust in the Digital Marketplace* (Boston, 1999), noting that the consumer-demand test does not reflect some economists’ understanding of bundling (pp. 72-73).

⁴⁷⁰ For detailed discussion, see Litan, “Antitrust and the New Economy”, U. Pitt. L. Rev. 429 (2001), pp. 429-430.

⁴⁷¹ See Sidak, *op. cit.*, stressing that in technologically dynamic markets, “it is misguided (and potentially harmful to consumer welfare) to dwell on the question of whether A and B are or are not separate products for the purpose of tying law, since the very definition of the relevant product may be in constant flux” (pp. 26-27).

⁴⁷² See Gastle and Boughs, “Microsoft III and the Metes and Bounds of Software Design and Technological Tying Doctrine”, Va. J. L. & Tech. 1 (2001), emphasising that the test neglects efficiencies (pp. 35-40). They write that “[t]he need to consider the efficiencies in circumstances of software design is suggested by the implications of the consumer demand test when it is taken to an extreme case” (p. 35).

⁴⁷³ See Mariotti, “Rethinking Software Tying”, Yale J. on Reg. 367 (2000), referring to the browsers and operating systems (pp. 377-379).

⁴⁷⁴ See Mariotti, *op. cit.*, p. 378.

⁴⁷⁵ *United States v. Microsoft Corp.*, 253 F.3d 34, at 85.

⁴⁷⁶ *United States v. Microsoft Corp.*, 253 F.3d 34, at 92.

4.3. The technological-integration test

The technological-integration concentrates on the attributes of the bundle itself. The test has been suggested in particular for technological bundles. The best-known example is *Microsoft II*. In that case, the Court of Appeals held that any "genuine technological integration" should be treated as one product "regardless of whether elements of the integrated package are marketed separately."⁴⁷⁷ The Court defined a genuine technological integration as any "product that combines functionalities [...] in a way that offers advantages unavailable if the functionalities are bought separately and combined by the purchaser."⁴⁷⁸

In this case, the Court arguably set a low threshold for determining whether a product meets this test. All the defendant has to demonstrate is "a plausible claim" that the bundle "brings some advantage."⁴⁷⁹ Any plausible claim of advantage satisfies this definition. For instance, it is not even necessary to show that the combined product is better than its standalone rivals. As a result, the test surely favours potential innovation over protection of competition.

The test seems to be consonant with the apparent feeling among courts that product design decisions involving technological products are uniquely beyond the ken of antitrust scrutiny. The Courts' underlying assumption is that product integration generates normally efficiencies. In *Leasco*, for instance, the Court of Appeals found the computer time-sharing franchise consisting of computer hardware, system software and application software to constitute a single product.⁴⁸⁰ In order to claim bundling, a plaintiff had to show that the product integration was merely "for the purpose of tying the products, rather than to achieve some technologically beneficial result."⁴⁸¹ In other words, a plaintiff must establish that the design decision was for the sole purpose of bundling.

The same approach is supported in a string of cases dealing with IBM's integration of peripheral devices into the central processing unit of its computers.⁴⁸² In *ILC Peripherals Leasing*, the plaintiff alleged that

⁴⁷⁷ *United States v. Microsoft Corp.*, 147 F.3d, at 948.

⁴⁷⁸ *United States v. Microsoft Corp.*, 147 F.3d, at 948.

⁴⁷⁹ *United States v. Microsoft Corp.*, 147 F.3d, at 950.

⁴⁸⁰ *Response of Carolina, Inc. v. Leasco Response, Inc.*, 537 F.2d 1307 (5th Cir. 1976). The first indication of a different standard for technological bundling can be found in *Telex Corp. v. International Business Machines Corp.*, 367 F. Supp. 258 (N.D. Okla. 1973).

⁴⁸¹ *Response of Carolina, Inc. v. Leasco Response, Inc.*, at 1330.

⁴⁸² *Innovation Date processing, Inc. v. IBM*, 585 F. Supp. 1470 (D. N. J. 1984), noting that the integration of a dump-restore utility into the operating system was a lawful package of technologically components (at 1476); *Calif. Computer Prods., Inc. v. IBM*, 613 F. 2d (9th Cir. 1979), holding that the defendant's product design decisions were a cost saving effort rather than an attempt to monopolise (at 727).

IBM's practice of selling disk-drives and the head/disk assembly for a single price amounted to an antitrust violation.⁴⁸³ Based on the facts, the District Court found that disk-drivers and head/disk assembly was a single product because the new technology increased the storage capacity of disk-storage devices.

The major advantage of the technological-integration test is its clear guidance for deciding whether products are distinct. "Any plausible claim," Weinstein accurately notes, "wins the day for the defendant."⁴⁸⁴ Compared to *Jefferson Parish*, a second advantage is the lower risk of erroneously finding a pro-competitive bundling illegal because there is 'some' separate demand for one of the items of the bundle. The test is advocated in the literature. Lopatka and Page point out that bundling Windows and application programs provides consumers with a more efficient product.⁴⁸⁵ The critical point is that "the line between the operating system and the applications is indistinct and permeable."⁴⁸⁶ They observe that the technological-integration test preserves this distinct line between both items and ensures further innovation. They argue further that judicial interference in this process may result in errors.⁴⁸⁷

Likewise, Baker argues that courts should not "second-guess such [bundling] decisions, regardless of whether the conclusion is expressed in terms of one product or otherwise."⁴⁸⁸ They must follow *Microsoft II*, Baker concludes. Other commentators have proposed a test that closely resembles *Microsoft II*. Hovenkamp suggests that the single-product conclusion is correct in all cases in which "the code for two programs is *interspersed* such that the purchaser cannot readily separate them."⁴⁸⁹

However, a serious case could be made that the test is flawed. First, it also offers a one-single factor analysis. Whereas the consumer-demand test ignores the functionality of integration, *Microsoft II* only evaluates functionality. The test thus ignores worthwhile information from both consumers and producers. Second, on a doctrinal level, *Microsoft II* was not "consistent with tying law" as claimed by

⁴⁸³ *ILC Peripherals Leasing Corp. v. IBM*, 448 F. Supp. 228 (N.D. Cal. 1978). For interesting overview, see Harchuck, "Microsoft IV: The Dangers to Innovation Posed by the Irresponsible Application of A Rule of Reason Analysis to Product Design Claims", Nw. U. L. Rev. 395 (2002), pp. 401-416.

⁴⁸⁴ See Weinstein, *op. cit.*, p. 930.

⁴⁸⁵ See Lopatka and Page, "Antitrust on Internet Time: Microsoft and the Law and Economics of Exclusion", Sup. Ct. Econ. Rev. 157 (1999), p. 192.

⁴⁸⁶ See Lopatka and Page, *op. cit.*, p. 193.

⁴⁸⁷ See Lopatka and Page, *op. cit.*, p. 200. Similarly, Gastie and Boughs, *op. cit.*, noting that "the consumer demand test is consistent with tying doctrine, but the plausible claim test is justified in technological tying cases involving software" (p. 2).

⁴⁸⁸ See Baker, *op. cit.*, p. 15.

⁴⁸⁹ See Areeda, *Antitrust Law* (Aspen, 1999), at 1746.1 (emphasis added).

the Court of Appeals.⁴⁹⁰ It failed to adhere to *Jefferson Parish* to examine consumer perception, not functionalities.⁴⁹¹ Third, on an analytical level, the test conflated the definitional dispute of the bundle's existence, questioning whether or not a bundle should be permissible. It thereby unwisely transformed the separate-product test into an inquiry that directs courts to solely examine the efficiencies and other benefits of the challenged bundle.

Perhaps the fatal shortcoming is that the test opens the door to increased anti-competitive behaviour by monopolists.⁴⁹² The test looks only at the benefits of bundling, and assumes that if the bundle brings even a minimal benefit it should be legal. No effort is made to measure costs associated with loss of consumer choice. In her dissent toward *Microsoft II*, Judge Wald correctly pointed out that the majority rule would create "too safe a harbour with too easily navigable an entrance."⁴⁹³

Other courts have also struggled with this final shortcoming. In *Caldera*, the plaintiff claimed that Microsoft had illegally tied MS-DOS and Windows.⁴⁹⁴ The Court was reluctant to give Microsoft "green light" to bundle whatever products it wanted by simply pointing to some "plausible advantage" in its new design.⁴⁹⁵ Clearly, it recognised the conflicting policy issues of chilling innovation and protecting competition from unlawful activities that can surround bundling claims. The Court stressed that applying *Microsoft II* would give "too much deference to the technology argument" and it is therefore "not the appropriate standard."⁴⁹⁶ Companies are allowed to build a "better mousetrap," but "just as courts have the potential to stifle technological advancements by second guessing product design, so too can product innovation be stifled if companies are allowed to dampen competition by unlawfully tying products together and escape antitrust liability by simply claiming a 'plausible' technological advancement."⁴⁹⁷

⁴⁹⁰ *United States v. Microsoft Corp.*, 147 F.3d, at 950.

⁴⁹¹ See Lam, *op. cit.*, referring to this shortcoming (pp. 1444-1447); and, Hawker, *op. cit.*, noting that since *Jefferson Parish* courts have consistently rejected functional approaches to the single product issue in favour of the consumer demand test (pp. 11-16).

⁴⁹² See Weinstein, *op. cit.*, writing that the test in fact seems to "pave the road for increased anticompetitive behaviour on the part of technology monopolists" (p. 923).

⁴⁹³ *United States v. Microsoft Corp.*, 147 F.3d, at 956-957.

⁴⁹⁴ *Caldera, Inc. v. Microsoft Corp.*, 72 F. Supp. 2d 1295 (D. Utah 1999).

⁴⁹⁵ *Caldera, Inc. v. Microsoft Corp.*, at 1320.

⁴⁹⁶ *Caldera, Inc. v. Microsoft Corp.*, at 1323.

⁴⁹⁷ *Caldera, Inc. v. Microsoft Corp.*, at 1323. It should be noted that the Court's alternative test is still flawed. The Court found that if evidence shows that the defendant created valid, not insignificant technological improvement by integrating two previously separate products, then in essence, the defendant created a new product and is not guilty of illegal bundling under the Sherman Act § 1 (at 1325). The Court stated that it must determine whether the new product is simply the former product, upgraded and packaged together, or rather, is a legitimate technology that created an entirely new product. The technological improvements must have "demonstrated efficiencies", which the court stressed is a higher standard of proof than the plausible claim test (at 1325).

Indeed, in my view, the proposed test does little to maintain competitive markets. As Woodrow De Vries observes, the test "wholly ignored the competitive consequences" of the bundle.⁴⁹⁸ Any monopolist could then integrate products and survive antitrust scrutiny merely by making a claim of some potential benefits. The same criticism applies to Hovenkamp's proposal because any software producer could comply with it by *interspersing* software code.

Lessig suggests a useful albeit deficient variation of the *Microsoft II* approach. Lessig views software products as "functionality separately valued by consumers," not as separate code.⁴⁹⁹ Simply put, the consumer does not care if the IE functionality is provided by one or more files. Courts must focus on "the perspective of the consumer."⁵⁰⁰ Lessig believes that software code can even be used better than other technologies in order to hide strategic bundling. That is why any legal test must be neutral between contract-based and code-based restrictions.⁵⁰¹

Applying these criteria, Lessig argues that currently, browser functionality is considered to be a separate product by consumers, but Microsoft's consolidation of its browser with its operating system should be treated presumptively as a single product under antitrust law, "unless an independent reason exists why this type of bundle raises special anticompetitive concerns."⁵⁰² The latter may be case when the bundle concerns partial substitutes.⁵⁰³ If the products are partial substitutes, a company with market power may use bundling to ensure that the bundled good does not become a competitive threat to the market position in the bundling market. In this way, this undertaking engenders a specific competitive threat.

Therefore, Lessig suggests that the single-product presumption of the Windows 98/IE bundle could be rebutted.⁵⁰⁴ However, Lessig stresses that a browser bundled with an operating system could nonetheless be treated as a single product *if* the software is configured so as to give consumers an option to refuse the partial substitute.⁵⁰⁵

⁴⁹⁸ See Woodrow De Vries, *op. cit.*, p. 314.

⁴⁹⁹ See Lessig (2000), *op. cit.*, pp. 19-20.

⁵⁰⁰ See Lessig (2000), *op. cit.*, p. 20.

⁵⁰¹ See Lessig (2000), *op. cit.*, p. 39.

⁵⁰² See Lessig (2000), *op. cit.*, p. 40.

⁵⁰³ See Lessig (2000), *op. cit.*, recognising rightly that bundling of complete substitutes is typically not harmful to the competitive process (p. 40).

⁵⁰⁴ See Lessig (2000), *op. cit.*, concluding that "the two software products of an operating system and browser functionality should be considered as 'two products' for purposes of antitrust tying." (p. 42).

⁵⁰⁵ See Lessig (2000), *op. cit.*, p. 42. Lessig notes that many of Microsoft's competitors bundle their operating systems with browsers, and that there is nothing anti-competitive about it. Indeed, combining the two functionalities offers many benefits. However, these competitors have not required consumers to take the bundle, and in fact they simultaneously offer their operating systems for sale either without a browser or in a manner that permits the consumer to remove the browser.

The major contribution of Lessig's work is the insight that any legal test should be neutral between contract-based and code-based.⁵⁰⁶ Antitrust analysis should aim at "anticompetitive ends, not whether the bundle achieves its interlinkage through contract or software."⁵⁰⁷ Another important contribution is that the Court should consider the nature of the underlying products in terms of functionality rather than as lines of code. Although defining the exact 'functionality' of software products is more complex than Lessig suggests, and courts may well be reluctant to perform these detailed inquiries, they must still be required to make this assessment.⁵⁰⁸ Finally, his test is an improvement over *Microsoft II* as it makes it more likely that anti-competitive bundles will be rooted out.

Regardless, Lessig's test must still be dismissed.⁵⁰⁹ First, it is a one-single factor analysis, and thus unnecessarily reduces the amount of information available. Second, its fatal shortcoming is the fact that the test sets a too low bar leaving a lot of room for "strategic bundling."⁵¹⁰ The test may create an incentive for software producers to modify their code in order to fit within the terms of the rule. Lessig openly recognises this "significant weakness" of his test. He also notes that it may create "an incentive for the bundler to hide that bundle in code."⁵¹¹

4.4. The market-practices test

Unlike the technological-integration test, the market-practices test focuses on the business actions of other participants in the applicable markets.⁵¹² Areeda and Hovenkamp have formulated such a test. Their test assesses whether bundling is *universal* in the relevant market.⁵¹³ They argue that universal bundling "demonstrates that the items [of the bundle] should be deemed a single product incapable of being tied together."⁵¹⁴

Universal bundling "dictates" either that consumers prefer the bundle over the standalone items, that producing the bundle shows cost savings, or that the bundle signals a quality improvement that

⁵⁰⁶ For an excellent discussion about 'code' in the modern world, see Lessig, *Code and Other Laws of Cyber Space* (New York, 1999).

⁵⁰⁷ See Lessig (2000), *op. cit.*, p. 39.

⁵⁰⁸ *Telex Corp. v. International Business Machines Corp.*, 367 F. Supp. 258 (N.D. Okla. 1973), noting that "it would otherwise enmesh the courts with technical and uncertain inquiry into the technological justifiability of functional integration and case unfortunate doubt on the legality of product innovations in serious detriment to the industry and without any legitimate antitrust purpose" (at 347).

⁵⁰⁹ For a very critical review, see Sidak, *op. cit.*, pp. 58-71.

⁵¹⁰ See Lessig (2000), *op. cit.*, p. 39.

⁵¹¹ See Lessig (2000), *op. cit.*, p. 42.

⁵¹² See Mariotti, *op. cit.*, pp. 374-377.

⁵¹³ See Hovenkamp and Areeda, *op. cit.*, pp. 835-846.

⁵¹⁴ See Hovenkamp and Areeda, *op. cit.*, p. 837.

outweighs loss of product choice.⁵¹⁵ If the market under investigation is not competitive, they suggest that “analogous markets” can be used to make the proposed analysis.⁵¹⁶ Analogues may include similar markets in different geographic regions, markets for buyers who are not locked in, or historical markets. They suggest applying the test also when bundling is *predominant*. Predominant bundling occurs when less than ten percent of the bundling items are sold unbundled.⁵¹⁷

For one, a major advantage of Areeda and Hovenkamp’s test is its reliance on easily measurable and available proxies. On the other hand, the first shortcoming is that many markets are not competitive because of network effects, economies of scale and lock-ins. This applies particularly to software markets. As a result, in many cases, the test merely offers a second-best solution of an indirect measurement of the cost and benefits of a bundle. In *Jefferson Parish*, for instance, there were thousands of hospitals comparable to those in the same district. In contrast, software products almost always have one or two serious rivals.

Second, if markets are not competitive, courts must identify analogous markets. This, by definition, is a tricky enterprise. An illustrative example is the market for Windows. Other geographical markets are not available considering the worldwide spread of the Windows market. A third shortcoming is the neglect that an undertaking with market power may engage in bundling for different reasons and with different effects from those without market power. Economic insights make clear that the fact all market participants in a particular market bundle does not necessarily indicate that a manufacturer with market power is not engaging in anti-competitive bundling.⁵¹⁸

Finally, the market-practices test also fails to produce the correct result for the same reason that the preceding tests failed. It relies on only one-single factor. This unnecessarily reduces the amount of information available to courts for determining whether there are separate products.

In sum, the market-practices should also be dismissed.

⁵¹⁵ See Hovenkamp and Areeda, *op. cit.*, p. 837.

⁵¹⁶ See Hovenkamp and Areeda, *op. cit.*, pp. 837-840.

⁵¹⁷ See Hovenkamp and Areeda, *op. cit.*, pp. 840-841.

⁵¹⁸ See Rubinfeld, “Antitrust Enforcement in Dynamic Network Industries”, *Antitrust Bull.* 859 (1998), p. 872.

4.5. The economic-measurement test

Economists in particular suggest ending reliance on the two-product inquiry as in *Jefferson Parish*. Instead, they propose to focus on the "overall impact of tying on the total cost to consumers of the tying and tied products."⁵¹⁹ Their test is called the economic-measurement test. Whereas the consumer-demand test and market-practices test rely on proxy variables, this test attempts to directly assess the costs and benefits of bundling.

Sidak has proposed such a test.⁵²⁰ He suggests a four-part test for determining whether product integration in a technologically dynamic market violates the antitrust laws. Sidak's first step is to ask whether the market in question is technologically mature or technologically dynamic.⁵²¹ If the market is technologically mature, the traditional *Jefferson Parish* approach is applicable. If the market is technologically dynamic, the next step is determining whether consumers will benefit from the integration, with benefits measured by increased consumer demand, lowered costs of production, or both.⁵²² Markets are technologically dynamic when technological innovation is the driving impetus and the product involved is novel.⁵²³ Unlike Areeda and Hovenkamp's test, these benefits are not measured in comparison with a hypothetical world in which products have not been integrated. Sidak argues that the only question is whether some actual benefits have been created by the integration.⁵²⁴

The third step is to determine whether the integration will preserve a monopoly over the bundling market.⁵²⁵ Referring to *Microsoft III*, this concern rests on the theoretical possibility that software integration may tend to preserve a monopoly over operating systems by discouraging the development of alternative platforms made possible by middleware. If no reduction in competition is discernible, the inquiry ceases and the bundle is deemed lawful. If competition is affected, the fourth step is to balance the integration's consumer benefits against the losses in consumer welfare by any reduction in

⁵¹⁹ See Katz and Shapiro, *op. cit.*, p. 75. Other supporters: Gastle and Boughs, *op. cit.*, pp 48-49.

⁵²⁰ See Sidak, *op. cit.*, pp. 80-81. For similar test, see Ordoover and Willig, "Access and Bundling in High-Technology Markets", in: Eisenach and Lenard, *op. cit.*, suggesting a similar three-step approach applying to situations in which the defendant has "bottleneck power" in the primary market (pp. 103-113); and, Mariotti, suggesting a test balancing the gains in innovation and reduction in transaction costs for consumers who want both the bundling and bundled good against the costs of consumers who only want the bundling good (p. 367).

⁵²¹ See Sidak, *op. cit.*, pp. 27-29.

⁵²² See Sidak, *op. cit.*, pp. 29-31.

⁵²³ See Sidak, *op. cit.*, stressing some facts that may illuminate the degree to which a market is more properly characterised as technologically dynamic: patent applications, expenditures on R&D, pattern of new business format, existence of highly mobile market for skilled workers (p. 26-27).

⁵²⁴ See Sidak, *op. cit.*, p. 31.

⁵²⁵ See Sidak, *op. cit.*, p. 31-32.

competition.⁵²⁶ Applying a Williamsonian trade-off, a finding of liability follows only if the first amount outweighs the second.⁵²⁷

The major contribution of Sidak's test is that it directly attempts to measure the costs and benefits of a bundle. A bundling arrangement offering higher costs than benefits will be anti-competitive. While the spirit of the test may be consistent with modern economic insights, the test is flawed on two levels. On a practical level, it suffers, like Areeda and Hovenkamp's test, from implementation problems. The test is not judicially manageable. An analysis that requires courts to make suppositions about costs and benefits and to make a Williamsonian trade-off is difficult to administer.

On an analytical level, the framework of the test conflates the separate-products issue with the assessment of the effects of the bundle. Like the technological-integration test, it transformed a simple definitional inquiry into a question of whether bundling should be permissible on economic grounds. Although *Microsoft II* solely focuses on the alleged efficiencies, Sidak's test seeks to fully balance the pro-competitive effects against the arrangement's anti-competitive effects. Even if the Supreme Court eventually decides to apply the rule of reason to bundling, the separate-product question should be kept separate from the question of whether a bundle is permissible. Collapsing the two would make the rule of reason superfluous because courts would have to examine the arrangement's efficiencies at the levels of both the separate-product issue and the rule of reason test.⁵²⁸

Other economic-measurement tests have also been proposed. For instance, the Court of Appeals' decision in *Microsoft II* sparked rather sharp and cogent dissent by Judge Wald. She found the Court's interpretation conflicted with antitrust law and offered her own interpretation as more consonant with "the weight of antitrust law."⁵²⁹ Judge Wald recommended an efficiency calculus, balancing the "synergies" generated by bundling two software products against the evidence that separate markets exist for the two individual items.⁵³⁰ The greater the evidence of distinct markets, the more a showing of synergies must make in order to merely incorporate distinct products. The test assesses whether integration "confers benefits on the consumer that justify a product's bridging of two formerly separate markets."⁵³¹

⁵²⁶ See Sidak, *op. cit.*, p. 32-33.

⁵²⁷ See Williamson, "Economics as An Antitrust Defense: The Welfare Tradeoff", *Am. Econ. Rev.* 18 (1968).

⁵²⁸ *Jefferson Parish Hospital District No. 2 v. Hyde*, confirming that the fact that consumers "are required to purchase two separate items is only the beginning of the appropriate inquiry" (at 25).

⁵²⁹ *United States v. Microsoft Corp.*, 147 F.3d, at 956.

⁵³⁰ *United States v. Microsoft Corp.*, 147 F.3d, at 958-959.

⁵³¹ *United States v. Microsoft Corp.*, 147 F.3d, at 958.

The first shortcoming is that Judge Wald's interpretation of the consent decree is not entirely consistent with antitrust law either.⁵³² Criticising the Court of Appeals for failing to adhere to *Jefferson Parish* and for effectively exempting software products from antitrust analysis, Wald likewise departed from the consumer-demand test by calling for a two-factor balancing test. The second deficiency of the test is that it also seeks to directly measure the arrangement's benefits. Likewise, it is hardly possible to implement this test in practice. How is a court to accurately assess the possible synergies? Wald had suggested using "affidavits, consumer surveys [...] as well as testimony from experts."⁵³³ It could be argued that these factors hardly provide conclusive answers.

Finally, the test requires Microsoft to counter evidence of historically separate markets with evidence of synergistic efficiency gains that courts are not equipped to evaluate. The real problem with the test is that it adds an unnecessary degree of complexity to the analysis. As a consequence, it may produce the wrong result in some cases. In sum, the majority in *Microsoft II* rightly countered that the Wald's test "is not feasible in any predictable or useful way."⁵³⁴

4.6. The multi-factor test as an alternative test

4.6.1. The foundations for a new test

The tests discussed are flawed in and of themselves. It is obvious that the simple-product test should be dismissed. Intuition is never a proper basis for antitrust intervention. It may be useful for tentatively selecting cases for further investigation, if at all. It is also clear that the technological-integration test of *Microsoft II* is inferior to the other tests proposed. This test does not make any effort to measure costs associated with loss of consumer choice, whereas the other approaches are designed to evaluate, either by proxy or directly, the costs and benefits of bundling. By contrast, it may even promote strategic bundling. A legal objection is that the technological-integration test is not consonant with earlier case law.

For one, the economic-measurement test appears to be theoretically superior to the proxy tests like the consumer-demand test and the market-practices test as it directly measures the effects of bundling.

⁵³² See Hawker, *op. cit.*, pp. 27-30.

⁵³³ *United States v. Microsoft Corp.*, 147 F.3d, at 958, n 3.

⁵³⁴ *United States v. Microsoft Corp.*, 147 F.3d, at 952.

Economists surely prefer this test. In my view, lawyers may think differently. The test is flawed because one must analytically distinguish the separate-product issue that is often "entangled" in tying.⁵³⁵ More importantly, the test's fatal shortcoming is that it is not judicially manageable. The proxy tests have the potential to be more judicially manageable because they concentrate on proxies that are relatively easy to measure. Arguably, these tests provide clearer guidelines to both courts and companies. On the other hand, the proxy tests offer a one-single factor analysis.

Evaluating the competitive impact of bundles is complex, and no one-single factor test will be sufficient in most cases. It is necessary to have a multi-factor test, combining at least the consumer-demand test and market-practices test. Although the *Microsoft II* approach *itself* should be rejected, the test highlights the need to consider the attributes of the bundle itself. A multi-factor will achieve more accurate results than either individual test. The test contains various categories of potentially useful information helping us determine whether a bundle is one product or two.

In conclusion, I would like to attempt an answer to the separate-product question based on a multi-factor proxy test.

4.6.2. The legal precedents

Proposing a multi-factor proxy test in turn leads to the question whether American case law could recognise such a test. The first attempt to give content to this test may be found in *Jerrold Electronics*.⁵³⁶ Jerrold was the leading seller of community television antenna systems during the 50s. It sold antenna systems requiring the purchaser to only let Jerrold install and service the system. The Jerrold system consisted of four parts: an antenna site; a device carrying the signal from the antenna to the local community; a system distributing the signal through the community; and, a tap-off system carrying the signal to the individual homes. The contracts also provided for the exclusive use of Jerrold equipment whenever extra capacity was needed. Jerrold further forbade installation of extra equipment without its approval.

The government charged that the full-system sales violated Clayton Act § 3, as well as Sherman Act § 1, because they bundled different commodities. Jerrold argued that the full-system sales were not a

⁵³⁵ See Lam, *op. cit.*, p. 1448.

⁵³⁶ *United States v. Jerrold Electronics Corp.*, 187 F. Supp 545 (E.D. Pa. 1960), *aff'd per curiam*, 365 U.S. 567 (1961). See also *Siegel v. Chicken Delight, Inc.*, 448 F. 2d 43, 47 (9th Cir. 1971), *cert. denied*, 405 US 955 (1972).

combination of individual items, but a single commodity. While determining whether the system was one product or not, Judge Van Dusen considered several factors.⁵³⁷ He noted that (1) other manufacturers sold parts of full systems as well as complete systems, (2) the number of pieces in Jerrold's systems varied considerably according to the specific needs of the community, (3) Jerrold charged the customer separately for each item in a system rather than for the entire system, and (4) Jerrold allowed customers to substitute antennas and cable from other resources.

In light of these factors, Judge Van Dusen claimed the evidence suggested that Jerrold had tied distinct products. The case was confirmed in 1961 by the Supreme Court. Although Van Dusen's analysis was fragmented and not well-developed⁵³⁸, his approach appears to introduce a test relying on three factors: (1) consumer perceptions; (2) the manufacturer's view; and, (3) product functionality.⁵³⁹

With respect to consumers, the ruling emphasised that some consumers wanted to buy the entire system and others just separate parts.⁵⁴⁰ By charging for each element separately, Jerrold indicated that it viewed the system as a bundle of different items.⁵⁴¹ In addition, it was clear that the defendant's competitors were also selling the systems piece-by-piece and as one complete antenna system. As for product functionality, he noted that the system configuration differed from community to community.⁵⁴² This indicates that bundling was not necessary for the combination to function correctly.

Another case that seems to support a multi-factor proxy test is *Data General*.⁵⁴³ Data General, a software company, was charged with bundling its CPUs with memory equipment.⁵⁴⁴ Like in *Jerrold*, the District Court applied a multi-factor test. Noting that neither of these products could function independently from the other, Judge Orrick assessed whether the items needed to be supplied by the same company.⁵⁴⁵

⁵³⁷ *United States v. Jerrold Electronics Corp.*, at 559-560.

⁵³⁸ See Frey, *op. cit.*, calling Jerrold "eine pragmatische Lösung" (p. 22) and noting that it gives "brauchbare Anhaltspunkte" (p. 31).

⁵³⁹ For similar conclusion, Weinstein, *op. cit.*, p. 943-944; and, Frey, *op. cit.*, calling Jerrold "[d]ie eigentliche Basis-Entscheidung" in relation to the separate-product question.

⁵⁴⁰ *United States v. Jerrold Electronics Corp.*, at 559.

⁵⁴¹ *United States v. Jerrold Electronics Corp.*, at 559.

⁵⁴² *United States v. Jerrold Electronics Corp.*, at 559.

⁵⁴³ *Re Data General Corp. Antitrust Litigation*, 490 F. Supp. 1089 (N.D. Cal. 1980).

⁵⁴⁴ Data General was also charged with bundling its operating system software with CPUs. It should be noted that Judge Orrick applied the same separate-product analysis to both claims.

⁵⁴⁵ *Re Data General Corp. Antitrust Litigation*, at 1107.

Notably, he considered Data General's point of view and the attitudes of other manufacturers. For instance, evidence indicated that the defendant's own marketing practices implied that CPUs and memory boards were separate products.⁵⁴⁶ This observation was reinforced by the fact that Data General's competitors also sold memory boards separately.⁵⁴⁷ The fact that some consumers consistently removed the memory boards bundled with the CPUs and replaced them with competing boards indicated that some customers viewed the products as separate.⁵⁴⁸ Considering whether bundling was functionally more efficient than selling the items separately, Judge Orrick observed that the defendant had produced no evidence that bundling would lead to cost savings.⁵⁴⁹

In sum, I think that the analysis of *Jerrold* and *Data General* suggests that American case law could recognise and benefit from a multi-factor test.⁵⁵⁰

4.6.3. The elements of the new test

In order to answer the separate-product question, courts should turn to the sources that best know the products involved: consumers and manufacturers. As for consumers, *Jefferson Parish* makes clear that consumer demand is useful in determining whether a bundle is one product or two. However, when considering demand at the time of bundling, it is not adequate for a court to simply state that some separate demand existed. Courts should clearly identify the consumers involved. Recalling the critical comments about the consumer-demand test, courts should also take into account the sophistication of the consumers identified. More knowledgeable consumers will be more likely to spot the efficiencies of a new bundle. Post-bundling consumer demand may also disclose useful information about the merits of a bundle. Arguably, courts should therefore assess whether there is continued separate demand for the standalone items *after* bundling.

As for manufacturers, an evaluation of their point of view should have two distinct elements. As in *Jerrold* and *Data General*, information regarding other manufacturers in the relevant market is very useful.⁵⁵¹ Manufacturers typically have a good understanding of their markets. If other manufacturers in

⁵⁴⁶ *Re Data General Corp. Antitrust Litigation*, at 1107.

⁵⁴⁷ *Re Data General Corp. Antitrust Litigation*, at 1108.

⁵⁴⁸ *Re Data General Corp. Antitrust Litigation*, at 1109.

⁵⁴⁹ *Re Data General Corp. Antitrust Litigation*, at 1110.

⁵⁵⁰ Other application of the multi-factor test: *NW Controls Inc. v. Outboard Marine Corp.*, 333 F. Supp. 493 (D. Del. 1971), holding that an outside boat engine and a cable-connected remote control system are separate products on the basis of the demand prior to bundling, internal documents, and the existence of independent suppliers of remote control systems.

⁵⁵¹ For a critical position, see Harchuck, *op. cit.*, noting that courts and juries are generally incapable of addressing the technical merits or anti-competitive and therefore they quickly make the relevant turn on intent (pp. 431-433).

the market continue to offer both standalones and the bundle, this strongly indicates that products are separate. In that case, manufacturers believe that the value of consumer choice outweighs the increased efficiency of the bundle. While it is clear that intent alone is not sufficient, the defendant's point of view may also disclose worthwhile information and inform other relevant facts.

Internal categorisations as separate products, or the use of separate marketing techniques for the bundle's items may be indicative for the *intrafirm* perceptions of the products involved. Furthermore, if a court can determine that the main reason for bundling was to dominate the bundled good market rather than to achieve efficiency, this forms strong evidence suggesting the existence of two separate markets.⁵⁵² The rationale behind this is that if the manufacturer does not expect to generate efficiencies, the bundle is probably anti-competitive.

For instance, *Microsoft III* would have been fundamentally different and enormously more difficult for the DoJ if it were not for the 3 million pages of e-mails the authorities reportedly obtained from the software giant.⁵⁵³ It goes without say that e-mails are actually better than the handwritten notes, commonly the 'smoking gun' in an antitrust case. They have all of the unguarded, spontaneous, and irreverent qualities that handwritten notes have, and the added bonus of being easily retrievable and readable by lawyers and courts.

To account for the possibility that both these sources were mistaken, courts must also consider the advantages of bundling itself. Although it might be difficult for courts to determine whether the bundle represents genuine progress, courts must still address this issue. If both the consumer and manufacturer evidence suggest a bundle, only overwhelming evidence that the bundle is a genuinely innovative should lead the court to find that it concerns one, single product. The threshold of 'some advantages' under *Microsoft II* is arguably too lenient, as it neglects the strategic effects of bundling.

⁵⁵² See Fisher *et al.*, *Folded, Spindled, and Mutilated: Economic Analysis and US v. IBM* (Cambridge MA, 1983), warning that the defendant's subjective intent "will usually reflect nothing more than a determination to win all possible business from rivals – a determination consistent with competition", but also recognising that where the defendant claims to have taken its actions for pro-competitive reasons, then clear and contemporaneous statements about intent can assist in evaluating that claim (p. 272).

⁵⁵³ See Fisher and Rubinfeld, "Misconceptions, Misdirections and Mistakes", in: Evans *et al.*, pp. 94-95.

5. Discussion of the legal standard for bundling

5.1. The application of a competition test

There appears to be a close link between the rationale for condemning bundling and the chosen legal rule to apply that rationale. Changes in legal-economic thought have influenced the Supreme Court's rulings by varying degrees over the years, though not always with immediate effect.

In the beginning, the Court appears to have adopted the *per se* approach in its entirety. The main concern was the fear for leveraging. In 1949, the Supreme Court's rationale was that "[t]ying agreements serve hardly any purpose beyond the suppression of competition."⁵⁵⁴ The Court's view is founded on the assumption that bundling is "inherently anticompetitive"⁵⁵⁵ and that "[t]he evil of tying agreements is the suppression of competition" in the bundled good market.⁵⁵⁶ "The pertinent issue"⁵⁵⁷ is the exclusion of competitors from the tied market, as those rivals are not excluded based on price or quality but due to "power or leverage."⁵⁵⁸ At the same time, the Court appears to have relied on some kind of consumer choice rationale. It worried about the effect on buyers because the "forced purchase of a second distinct commodity with a desired purchase of a dominant tying product, resulting in economic harm to competition in the tied market."⁵⁵⁹

Closely related to this fact was the nature of the assessment whether the defendant had market power. Typically, the Court quite easily presumed sufficient market, and thus *per se* illegality without a "full scale factual inquiry into the scope of the relevant market for the tying product."⁵⁶⁰ For instance, in the early patent cases, there was the presumption of economic power for patented and copyrighted products.⁵⁶¹ The fact that the threshold for market power in bundling cases was lower than in most 'normal' antitrust cases was another indication for the Court's consumer choice rationale.⁵⁶²

⁵⁵⁴ *Standard Oil Co. v. United States*, at 305.

⁵⁵⁵ *Brown Shoe v. US*, at 329.

⁵⁵⁶ *Aluminium Co. of America Inc. v. Sperry Prods., Inc.*, 285 F. 2d 911 (6th Cir. 1969), at 926.

⁵⁵⁷ *Osborn v. Sinclair Refining Co.*, 286 F. 2d 832 (4th Cir. 1960), at 838.

⁵⁵⁸ *Northern Pacific Railway Co. v. US*, at 6.

⁵⁵⁹ *Times-Picayune v. United States*, at 614.

⁵⁶⁰ *United States v. Loew's*, at 45.

⁵⁶¹ Very recently, this controversial assumption has been confirmed: *Independent Ink, Inc. v. Illinois Tool Works, Inc. and Trident, Inc.*, Court of Appeals California, 25 January 25 2005, <http://fedcir.gov/opinions/04-1196.pdf>. Finding against the literature and Independent, the Court concluded that "the Supreme Court has held that there is a presumption of market power in patent tying cases, and we are obliged to follow the Supreme Court's direction in this respect. The time may have come to abandon the doctrine, but it is up to the Congress or the Supreme Court to make this judgment" (p. 14).

⁵⁶² See Denis Waelbroeck, "The Compatibility of Tying Agreements with Antitrust Rules: A Comparative Study of American and European Rules", *OxYel* 39 (1987), pp. 44-45; and, Craswell, *op. cit.*, pp. 670-671.

After *Standard Oil*, the Supreme Court appears to have backed down, if only slightly, from the extreme assertion that *all* bundling is the result of the exercise of market power. In *Fortner I/II* and *Northern Pacific Railway*, the Court seems to suggest that market power was an independent requirement, although relatively easy to prove.⁵⁶³ By the mid-1970s, the Court appears to have tightened up this requirement, rejecting the implication of some earlier cases that the mere existence of a bundle created a presumption of economic power.⁵⁶⁴

In *Jefferson Parish*, this departure was made explicit. Here, the Supreme Court held that there could be no danger of forcing unless the seller possessed independently-proven market power.⁵⁶⁵ Arguably, this shift places more emphasis on the assessment of the arrangements' competition effects and less on the consumer choice rationale. Later, *Microsoft III* focused exclusively on competition effects. For the remand, the Court of Appeals expressly noted to assess the "actual effect of Microsoft's conduct on competition in the tied good market."⁵⁶⁶ The bundling injury must be demonstrated on a "careful definition of the tied good market and a showing of barriers to entry other than the tying arrangement itself."⁵⁶⁷

Jefferson Parish had also shifted the emphasis in bundling cases away from short-term leveraging and toward the degree to which the bundle denies market access to rivals. This is consonant particularly with the Chicago insights that the leverage theory does not always work in short term. As the Court of Appeals noted in *Microsoft III*, "[f]irms without market power have no incentive to package different pieces of software together unless there are efficiency gains from doing so."⁵⁶⁸ It also opens the antitrust analysis to the possibility of negative long-term effects.

The Supreme Court thus wavered over the years in its acceptance of economic assumptions of the *per se* test resulting in a modified *per se* test. What was initially an antitrust blend of assessing the

⁵⁶³ *Fortner Enters., Inc. v. United States Steel Corp.*, 394 US 495, suggesting that the "proper focus of concern is whether the seller has power to raise prices" (at 504); *Northern Pacific Railway Co. v. US*, noting that "[t]he very existence of this host of tying arrangements is itself compelling evidence of defendant's great power" (at 7-8). For a similar conclusion, see Craswell, *op.cit.*, writing that "[a]t one time, the Supreme Court seemed to indicate that the fact that the seller was able to insist on a tie was itself sufficient evidence of market power" (p. 671).

⁵⁶⁴ *United States Steel Corp. v. Fortner Enters., Inc.*, 429 US 610, holding that the mere existence of the bundling contract is insufficient to establish "kind of economic power which Fortner has the burden of proving [...] to prevail in this litigation" (at 610).

⁵⁶⁵ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 16-18.

⁵⁶⁶ *United States v. Microsoft*, 87 F.Supp. 2d 30, at 96 (emphasis added).

⁵⁶⁷ *United States v. Microsoft*, 87 F.Supp. 2d 30, at 96 (emphasis added).

⁵⁶⁸ *United States v. Microsoft*, 87 F.Supp. 2d 30, at 73.

competition and consumer effects, appears to have now moved to a competition test. The Court of Appeals in *Microsoft III* went further. Expressly, it called for an unstructured rule of reason. The nub of the problem is that the Supreme Court has to finally decide which test to apply.

5.2. Legal-economic analysis of some Supreme Court decisions

The result of the current approach can be quite harsh in some respects. Usually, bundling should be limited to the case of sellers with monopoly power. This is logical in light of the issue's roots in antitrust and economic theory.⁵⁶⁹ However, many cases discussed have involved *unconcentrated* markets where analyses based on an assumption of monopoly power fit poorly, if at all. Courts have explicitly noted the implausibility of leveraging theory in only a few judicial opinions.⁵⁷⁰

Arguably, neither *IBM* nor *International Salt* are fully persuasive. Due to the extent that IBM occupied the tabulating machine market, they probably also gained a monopoly in the sale of tabulating cards. However, it does not follow, as the Court presumed, that IBM would make a monopoly profit in the second market. It should be stressed that the two products were complementary, and therefore both were necessary for any tabulating service. In *International Salt*, it does not follow that International Salt's patents on salt dispensing machines necessarily gave it a monopoly in that field. The Court did not consider how many other machines were available, what International Salt's market share was, or the availability of brine and canners to users.

Typically, commentators suggest that IBM and International Salt have imposed bundling so as to discriminate among users based on the intensity of their use of the products involved.⁵⁷¹ For instance, Peterman has persuasively argued that the evidence in *International Salt* is inconsistent with that claim of price discrimination⁵⁷²

First, arbitrage appears to have made discrimination between users unlikely. International Salt leased its machines requiring the lessee purchase salt only in areas of the country in which IS actually sold salt. In areas where it did not sell salt, it only sold the salt-dispensing machines. In other words, users who did not want the bundling contract could buy the machine in another location.

⁵⁶⁹ See Chapter 1.

⁵⁷⁰ For instance, *Hirsch v. Martindale-Hubbell, Inc.*, 674 F.2 1343 (9th Cir. 1982), at 1349.

⁵⁷¹ See Hylton, *op. cit.*, pp. 289-290; Gellhorn and Kovacic, *op. cit.*, p. 331; Bauer, *op. cit.*, pp. 294-295.

⁵⁷² See Peterman, "The International Salt case", *J. Law & Econ.* 351 (1979), pp. 363-364. See also Golberg, "The International Salt Puzzle", *Res. Law & Econ.* 31 (1991).

Second, price discrimination assumes that the price incorporates the monopoly profit. Because International Salt's arrangement also provided for an English clause, it would have been unlikely that the salt was sold above market prices. Instead, bundling allowed the company to reduce its selling expenses by achieving some distribution efficiencies. Likewise, Cummings and Ruhter made it clear that price discrimination in *Northern Pacific Railway* was unlikely. They concluded that the clause waiving the bundle when the railroad could not meet a rival's price prevented the plausibility of the leveraging theory.⁵⁷³

Some commentators argue that the decision in *Kodak* falsely condemned bundling.⁵⁷⁴ In 1987, a number of Independent Service Organisations ("ISO") sued Kodak for bundling its spare parts for Kodak copiers with servicing of these machines. In an effort to combat the growing competition from ISOs, Kodak implemented a policy of selling spare parts to users who could service the copiers themselves or servicing the copiers itself. Importantly, it refused to sell its parts to ISOs that provide maintenance on the Kodak copiers. In support of this new policy, Kodak also tried to prevent ISOs from acquiring Kodak parts from other sources.

For instance, Kodak agreed with OEMs that they would not sell Kodak parts to anyone but Kodak. Because Kodak had only a 23% share of the copier market, ISOs claimed that the bundling product was Kodak replacement parts. It was alleged that Kodak used its monopoly power in the Kodak parts market, where it essentially had a 100% market share, in order to gain control of the Kodak service market through illegal bundling. Basically, Kodak's defence was based on the argument that if there is competition in the primary market of copiers, aftermarket power cannot negatively affect consumers.

In 1991, after the Supreme Court granted *certiorari* to review the Court of Appeals' decision, scholars became hopeful that the Court would seize opportunity to clarify its bundling case law.⁵⁷⁵ Arguably, the 6 to 3 decision in *Kodak* resolved very little. Instead, it promised to raise more questions than it answers. The Court found that Kodak had unlawfully bundled the sale of service for Kodak machines to the sale of replacement parts in violation of Sherman Act § 1. The Court recognised that the manufacturer's

⁵⁷³ See Cummings and Ruhter, "The Northern Pacific Case", J.L. & Econ. 329 (1979), pp. 341-344. They argue that the bundle should still be prohibited because it could have been a device for monitoring competitor's prices and thus facilitating tacit collusion. For similar conclusion, see Anlauf, *op. cit.*, p. 489.

⁵⁷⁴ See Carlton and Waldman, "How Economics Can Improve Antitrust Doctrine Towards Tie-in Sales", *Comp. Pol'y Int'l* 27 (2005), pp. 34-35; and, Carlton, "A General Analysis of Exclusionary Conduct and Refusal to Deal - Why Aspen and Kodak are Misguided", *Antitrust L. J.* 659 (2001), pp. 659-683.

⁵⁷⁵ See Pester, "Antitrust Law: Removing the Confusion in Tying Arrangement Jurisprudence", *Ann. Surv. Am. L.* 699 (1990), p. 701.

ability to raise prices in aftermarket would be constrained by the possibility of consumers purchasing alternative equipment from another manufacturer.⁵⁷⁶ However, if consumers lack the necessary information to calculate the likely lifetime costs of competing producers' copiers, they may find themselves locked-in to a particular brand of equipment after they have made their initial equipment purchase.

The Court rejected the defendant's theory of fully informed consumers.⁵⁷⁷ It found that consumers could not make a full assessment of the lifetime package cost before making the purchase. However, it is doubtful whether the assumption of imperfect information coincided with reality.⁵⁷⁸ Many of Kodak's customers were large, sophisticated business firms able to properly consider lifetime costs.⁵⁷⁹

At first glance, the criticism of the Supreme Court's theory may make sense, at least with regards to the short term leveraging. On other hand, Kodak's policy could have long-term negative consequences on the copier market.⁵⁸⁰ Kodak's conduct would effectively drive ISOs out of the market for providing service to Kodak copiers. As a consequence, only the copier companies would service their own brand of copier. This would affect the ability of new firms to enter the copier market. A new entrant to the copier market would have to incur all of the costs of designing, manufacturing and selling copiers, but would also have to set up an entire servicing network. This would clearly create high entry barriers to the copier market.⁵⁸¹ The Supreme Court appears to have recognised this long-term effect when it concluded "one of the evils proscribed by the antitrust laws is the creation of entry barriers to potential competitors by requiring them to enter two markets simultaneously."⁵⁸²

⁵⁷⁶ *Eastman Kodak Co. v. Image Technical Services*, responding to Kodak's highly theoretical argument and emphasising the Court's preference for a case-by-case fact intensive approach: "[l]egal presumptions that rest on formalistic distinctions rather than actual market realities are generally disfavored in antitrust law" (at 467).

⁵⁷⁷ *Eastman Kodak Co. v. Image Technical Services*, at 475-481.

⁵⁷⁸ Notably, some commentators argue that aftermarket hold-up is not possible, even if consumers are totally uninformed because it requires also imperfect information on the seller's side: Shapiro, "Aftermarkets and Consumer Welfare: Making Sense of Kodak", *Antitrust L. J.* 483 (1995).

⁵⁷⁹ See Van den Bergh and Camesasca, *European Competition Law and Economics – A Comparative Perspective* (Antwerp, 2001), p. 284.

⁵⁸⁰ This point was made by Nalebuff in *Bundling, Tying and Portfolio Effects* (DTI paper, 2003), pp. 70-71. He argues that Kodak's policy has two effects: price metering as a positive effect (pp. 68-70) and entry deterrence as a negative effect.

⁵⁸¹ Notably, those entry barriers increase the potential ability for a firm to unilaterally raise prices, but it may also facilitate a collusive outcome.

⁵⁸² *Eastman Kodak Co. v. Image Technical Services*, at 486.

5.3. Clarifying the law on bundling

The case law is nebulous and ripe for review.⁵⁸³ Review is suggested by the strong dissents in *Jefferson Parish* and *Kodak*. In the latter case, Judge Scalia sharply criticised the *per se* approach. He noted that "[p]er se rules of antitrust illegality are reserved for those situations where logic and experience show that the risk of injury to competition [...] is so pronounced that it is needless and wasteful to conduct the usual judicial inquiry into the balance between the behavior's procompetitive benefits and its anticompetitive costs."⁵⁸⁴

If the rigid *per se* test is clearly indefensible and the *per se* legal test is too optimistic about possible efficiencies and too sceptical about the negative effects, what should the Supreme Court put in its place as an alternative to the current morass? For one, any new approach must be designed to deal with all markets, not just high-tech markets.⁵⁸⁵ The Court has two options: (1) adapting the current modified *per se* test, or (2) applying the rule of reason test.

5.3.1. Adapting the modified *per se* test

When choosing between the unfavourable *per se* test and the rule of reason test, commentators usually prefer the latter approach.⁵⁸⁶ Those commentators neglect the option of adapting the current Supreme Court test. Perhaps the major advantage of a modified *per se* is that it provides for a clear rule for businessmen and courts.⁵⁸⁷ *Jefferson Parish* helps make the distinction between the *per se* and rule of reason analyses.⁵⁸⁸ According to the Supreme Court, in the event that a defendant has a great deal of leveraging power, the *per se* analysis is appropriate for the existence of forcing by the defendant is *more than likely*.⁵⁸⁹ In the circumstances where the defendant is clearly in a dominant position to engage in "anticompetitive conduct," a court can avoid making a burdensome inquiry into actual market conditions.⁵⁹⁰

⁵⁸³ *United States v. Jerrold Electronics Corp.*, writing that "[a]n injustice would be done by blindly accepting the *per se* rule" (at 56).

⁵⁸⁴ *Eastman Kodak Co. v. Image Technical Services*, at 489-502.

⁵⁸⁵ See White, "Microsoft and Browsers: Are the Antitrust Problems Really New?", in: Eisenach and Lenard (eds.), *op. cit.*, arguing that "[t]he antitrust issues at stake in Microsoft are not new and are not unique to computer software" (pp. 137-139).

⁵⁸⁶ An interesting exception is Campell. He suggests adopting the rule of reason test for non-dominant firms and the *per se* test for dominant firms. See Campell, "Fit to Be Tied: How *United States v. Microsoft Corp.* Incorrectly Changed the Standard For Sherman Act Tying Violations Involving Software", *Loy. L. A. Ent. L. Rev.* 583 (2002), pp. 602-603.

⁵⁸⁷ For a similar recognition, see Bauer, *op. cit.*, p. 286.

⁵⁸⁸ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 14-18.

⁵⁸⁹ *Jefferson Parish Hospital District No. 2 v. Hyde*, holding that "[a] threshold matter there must be a substantial potential for impact on competition in order to justify *per se* condemnation" (at 15-16).

⁵⁹⁰ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 15.

In contrast, the rule of reason test allows a court to examine the potential benefits of a certain bundle by investigating the market, although at the expense of increased litigation inherent to a case-by-case inquiry.⁵⁹¹ The *per se* test therefore simplifies judicial application. A second advantage is that courts do not apply the *per se* test in a typical way. The *per se* test in other areas of competition law simply avoids inquiry into market structure altogether as the challenged behaviour has little chance of being beneficial and a great likelihood of being harmful.⁵⁹² However, the current test incorporates some economic analysis.⁵⁹³ As seen in *Fortner II* and *Jefferson Parish*, courts must assess the market structure.⁵⁹⁴ The threshold for application of the test is substantial market power, which economists view as a necessary condition for anti-competitive bundling. Even so, once a plaintiff has established market domination and the *per se* test is in order, courts still allow the defendant to justify its business conduct.

In my view, the current modified *per se* test has deficiencies. As our next section on efficiencies demonstrates, US law only accepts business justifications under very limited circumstances. This is plainly contrary to the economic insights discussed in the first chapter. As for the separate-product question, courts apply a variety of tests that are all somewhat flawed. To a certain extent, both shortcomings could be solved by accepting bundling-related efficiency justifications and by applying the multi-factor test proposed. Although those modifications may surely increase the modified *per se* test's attractiveness, the test is still flawed on two related levels.

On an analytical level, the test is based on the prior belief that it is *more than likely* that a defendant holding a strong market position engages in anti-competitive bundling. If a plaintiff proves both significant market power and the existence of a bundle, there is the assumption that the defendant is acting anti-competitively.⁵⁹⁵ The defendant must then demonstrate that its practice is justified. Splitting the 'existence' from the 'liability' issues would be a more sound antitrust approach. Once a bundle is found to exist, this should not conclusively establish liability, even if done so after some economic analysis within that standard. This would be consonant with mainstream economic thinking that leveraging may be *likely* when the defendant has market power.

⁵⁹¹ See Anlauf, *op. cit.*, pp. 508-509.

⁵⁹² See Campell, *op. cit.*, p. 601.

⁵⁹³ *Town Sound & Custom Tops, Inc. Chrysler Motors Corp.*, finding that without anti-competitive conduct, a bundling arrangement in a competitive marketplace is not illegal in and of itself (at 495-496).

⁵⁹⁴ *Jefferson Parish Hospital District No. 2 v. Hyde*, stressing that "[t]he *per se* doctrine in tying cases has thus always required an elaborate inquiry into the economic effects of the tying arrangement" (at 34).

⁵⁹⁵ *Moore v. Jash Matthews*, 550 F. 2d 1207 (9th Cir. 1977), making a similar point that bundling is presumed illegal (at 1211).

Moreover, the *per se* language suggests an 'ideological' position that is not required for bundling. For instance, price fixing is assessed under a *per se* test, as it is considered to be very pernicious at all times. Given its ambiguous effects, bundling is not always harmful. In order to avoid confusion, the *per se* language should be abandoned. On a practical level, the current test does not really save the judiciary and litigants any time or expense. The modified test also involves considerable factual investigation and proof.

5.3.2. Applying the rule of reason test

Contrasted to the *per se* test, a restriction analysed under the rule of reason test is condemned only after analysis of its purpose and effect on competition. A key component in this analysis is an examination of efficiencies. If a restriction is essential to achieve significant efficiencies in production, distribution, or development, a court applying a rule of reason analysis will balance these pro-competitive effects against the anti-competitive effects when establishing the legality of the restriction.⁵⁹⁶

The obvious argument in favour of the rule of reason test is the somewhat uncertain path of the antitrust doctrine with regards to bundling. As already observed, the Supreme Court decidedly adopted a *per se* analysis without ever actually applying it in its 'true' nature. Recently, it clearly backed away from reflexive invalidation of bundling. It began to apply a modified *per se* test that resulted in such restraints withstanding antitrust scrutiny.

The rule of reason test was resolutely praised in *Jefferson Parish's* vigorous dissent and implicitly hinted towards in *Kodak's* dissent. *Microsoft III* can be seen as a major impetus for the adoption of the rule of reason test.⁵⁹⁷ Another advantage of the rule of reason inquiry is that it accords more closely with economic theory than any *per se* test, whether modified or not. From an economic perspective, bundling can have pro-competitive as well as anti-competitive effects. The Supreme Court appears to have accepted this position when it stated in *Jefferson Parish* that "there is nothing inherently anticompetitive about packaged sales."⁵⁹⁸

⁵⁹⁶ *Chicago Board of Trade v. US*, 246 US 231 (1918), holding that courts must assess "whether the restraint imposed is such as may suppress or even destroy competition. To determine that question the court must ordinarily consider the facts peculiar to the business to which the restraint is applied; its condition before and after the restraint was imposed; the nature of the restraint and its effect, actual or probable" (at 238).

⁵⁹⁷ Notably, Judge Scalia did not directly call for the elimination of the *per se* test in *Eastman Kodak Co. v. Image Technical Services*, at 489-502, but he strongly criticised the effects of such a test.

⁵⁹⁸ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 25.

Some scholars stress that the rule of reason test for bundling suffers from many problems, including ambiguity, increased litigation costs, and unpredictability.⁵⁹⁹ The major disadvantage of the test is that it is more costly for courts to administer.⁶⁰⁰ This is why some advocate that courts must only apply the rule of reason test in situations where a lengthy inquiry into market structure and market conditions is warranted.

Harchuck focuses on the negative effects of fear of antitrust litigation on innovation.⁶⁰¹ Because the rule of reason test is less deferential to defendants than the *per se* test, the plaintiff's ability and likelihood of success (in combination with the resultant increase in potential to collect treble damages) increases the incentive to start bundling suits, particularly with regards to design decisions. Harchuck stressed that this would create "a fear of antitrust litigation and could potentially create disincentives for companies to pursue beneficial innovation for new products."⁶⁰² To avoid this effect, he calls for antitrust immunity for technical bundling. The troublesome issue with Harchuk's proposition is that it ignores the possible anti-competitive effects of such decisions. This would open the door to increased anti-competitive behaviour by monopolists.⁶⁰³

Remarkably, the cost aspect is used by other commentators to opt for the *per se* test. Campell advances that *Microsoft III* only causes confusion and unnecessary litigation in cases that courts should swiftly resolve under the *per se* test.⁶⁰⁴ This proposal is ostensibly negative for business. It would be unwise to continue to apply a modified *per se* test to technological bundling given the shortcomings identified in the preceding section.

⁵⁹⁹ In particular, see Turner, "The Durability, Relevance, and Future of American Antitrust Policy, Cal. L. Rev. 797 (1987), p. 800.

⁶⁰⁰ See Hylton, *op. cit.*, p. 130.

⁶⁰¹ See Harchuck, *op. cit.*, pp. 434-436.

⁶⁰² See Harchuck, *op. cit.*, p. 434.

⁶⁰³ See Weinstein, *op. cit.*, p. 923.

⁶⁰⁴ See Campell, *op. cit.*, p. 603.

6. Bundling and efficiencies

6.1 Introductory remarks

Companies that are legally challenged for bundling have often tried to justify their practice.⁶⁰⁵ An efficiency justification was accepted for the first time in *Pick Manufacturing*.⁶⁰⁶ The defendant, the distributor of Chevrolet cars, insisted that its authorised dealers use only Chevrolet replacement parts in their repair operations, of which it was the sole supplier. The lower court approved this requirement based on the theory that the use of potentially inferior non-Chevrolet parts could lead to consumer dissatisfaction with the cars itself. The bundle was thus justified so that General Motors could preserve good will towards its products. The general position under US law is that "a *proper business reason* must justify what might otherwise be an unlawful tie-in."⁶⁰⁷

The Supreme Court allowed defendants in cases like *IBM*, *International Salt* and *Jerrold* to assert limited affirmative business justifications. This apparent contradiction of a *per se* test with potential exceptions has caused some confusion in the lower courts.⁶⁰⁸ Although defendants have sought in many cases to rely on the justification argument, it "fails in the usual situation."⁶⁰⁹

6.2. Efficiency justifications in detail

6.2.1. The justification promotes competition

This type of justification accepts the bundling practice because it promotes the overall competitiveness of the markets involved.⁶¹⁰ The most important case here is *Jerrold*. Finding a bundle of separate items, the Court held that the full-system sale was reasonable *at inception* because it was "instituted in the launching of a *new business* with a high uncertain future."⁶¹¹ It noted that poor quality performance

⁶⁰⁵ For overview, see Hovenkamp and Areeda, *op. cit.*, pp. 857-888; and, Jansen, *op. cit.*, pp. 84-86.

⁶⁰⁶ *Pick Manufacturing Co. v. General Motors Corp.*, 80 F.2d 641 at 643-44 (7th Cir. 1935), *aff'd per curiam*, 299 U.S. 3 (1936).

⁶⁰⁷ *Dehydrating Process Co. v. A.O. Smith Corp.*, at 655-656.

⁶⁰⁸ *Miller v. Granados*, 529 F. 2d 393 (5th Cir. 1976), refusing to consider a goodwill defense because "once a tying arrangement is found to exist in context of sufficient market power, its illegality is established without further inquiry into business excuses for its uses" (at 396).

⁶⁰⁹ *Standard Oil Co. of California v. United States*, at 305-306.

⁶¹⁰ *Scanlan v. Anheuser-Busch Inc.*, 388 F. 2d 918 (9th Cir. 1968), noting that "[a] course of conduct which this increases rather than diminishes competition benefiting rather than injuring the public is not condemned under the Sherman or Clayton Act."

⁶¹¹ *United States v. Jerrold Electronics Corp.*, at 556-557.

could doom the industry that Jerrold was creating. During the development period of a new industry, bundling is justified as a device for assuring the effective functioning of complex equipment. Clearly, this justification is limited in time, although no indication of time was given.⁶¹²

The temporal nature of the justification was firmly stressed in *Chicken Delight*.⁶¹³ Chicken Delight is a franchise set up in 1952. The defendant required franchisees to purchase different paper products necessary for different types of sales. The Court rejected the defendant's new business justification in 1971. "To accept Chicken Delights argument would convert," the Court said, "the *new business justification* into a perpetual license to operate in restraint of trade."⁶¹⁴ Quite properly, the Court attempts to balance the need for the bundle with its presumed anti-competitive effects.

There is some suggestion that a company seeking to enter a new market would be entitled to use bundling in order to stake out a market share. What counts for the introduction of a new product may likewise apply for a newcomer. This form of bundling is sometimes called "performance survival tie-ins."⁶¹⁵ In *Brown Shoe*, the newcomer argument is expressly mentioned when referring to *Jerrold*, although it was not relied upon in the final decision.⁶¹⁶

6.2.2. The justification favours intent over possible negative effects

6.2.2.1. Goodwill protection

This type of justification favours the tying party's intent over the anti-competitive effects of the bundle. The Supreme Court has *in principle* endorsed the goodwill defense but never accepted it based on the facts. The justification was accepted for the first time by a lower court in *Pick Manufacturing*.⁶¹⁷ The goodwill justification has been limited by the requirement that it is the least restrictive alternative available to the seller. If specifications of the individual items of a bundle could assure the same high level of quality, it is not available. Notably, courts do not itself consider the degree to which quality standards could be feasibly specified and enforced.⁶¹⁸

⁶¹² *United States v. Jerrold Electronics Corp.*, at 558 (emphasis added).

⁶¹³ *Siegel v. Chicken Delight, Inc.*

⁶¹⁴ *Siegel v. Chicken Delight, Inc.*, at 51 (emphasis added).

⁶¹⁵ See Frey, *op. cit.*, p. 155.

⁶¹⁶ *Brown Shoe v. United States*, 370 US 294, at 323.

⁶¹⁷ *Pick Manufacturing Co. v. General Motors Corp.*

⁶¹⁸ *Jefferson Parish Hospital District No. 2 v. Hyde*, holding that a "finding as to why contractual quality specifications would not protect the hospital" is irrelevant (at 26, n 42).

In *IBM*, the defendant claimed that bundling was necessary to guarantee the proper functioning of the tabulators, although it admitted that other manufacturers could make cards satisfying the correct specifications.⁶¹⁹ The Supreme Court firmly rejected IBM's justification. IBM could have employed the less restrictive alternative of warning consumers about the "necessary specifications" or conditioning the lease on use of cards meeting the company's specifications.⁶²⁰

The goodwill justification was made again in *International Salt*. The defendant asserted that its salt was more pure than that of competitors, and it would therefore be less likely to harm its machines.⁶²¹ Considering that competitors could also produce pure salt, the Court emphasised that quality specifications could be easily specified and monitored. In a plainly sarcastic way, it rejected International Salt's justification, considering that less restrictive alternatives were obviously available.⁶²²

In *Jefferson Parish*, the defendant claimed that it bundled so as to assure 24-coverage, flexible scheduling, professional standards, and equipment maintenance.⁶²³ The Court did not reject these justifications as inadmissible under the *per se* test. Instead, it found no reason to overturn the lower court's conclusion that less restrictive alternatives were available, such as imposing "standards for staff privileges that would ensure staff would comply with the demands of scheduling, maintenance, and professional standards."⁶²⁴

In *Kodak*, the defendant contended that quality control was a legitimate business reason for its behaviour. Kodak declared that, by preventing customers from using ISOs, "it [could] best maintain high quality service for its sophisticated equipment" and avoiding being "blamed for an equipment malfunction, even if the problem is the result of improper diagnosis, maintenance or repair by an ISO."⁶²⁵ First, the Supreme Court ruled that the evidence of ISOs providing quality service at lower prices was sufficient to refute Kodak's argument.⁶²⁶ It stressed that Kodak adopted its parts policy only after an ISO won a contract and once Kodak allowed its own customers to service their machines. Kodak customers could distinguish breakdowns due to poor service from breakdowns due to inferior

⁶¹⁹ *International Business Machines Corp. v. United States*, at 138-139.

⁶²⁰ *International Business Machines Corp. v. United States*, at 139-140. IBM could have easily specified issues like the correct size and thickness of the cards. See Bowman, *op. cit.*, noting that "[a] careful description of the specifications necessary for successful performance might overcome the objections of the manufacturer" (p. 28).

⁶²¹ *International Salt Co. v. United States*.

⁶²² *International Salt Co. v. United States*, stating that "it is not pleaded, nor it is argued, that the machine is *allergic* to salt of equal quality produced by anyone except International" (at 397-398) (emphasis added).

⁶²³ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 25, fn. 42.

⁶²⁴ *Jefferson Parish Hospital District No. 2 v. Hyde*, at 25, fn. 42.

⁶²⁵ *Eastman Kodak Co. v. Image Technical Services*, at 483.

⁶²⁶ *Eastman Kodak Co. v. Image Technical Services*, at 483-484.

parts. Second, the Court raised the issue of Kodak making conflicting statements about customers' informational sophistication.⁶²⁷ Kodak submitted that customers would be able to fully evaluate the life-cycle costs of buying and using its copiers. However, it maintained that the same customers were unable to distinguish which breakdowns are due to bad equipment and service.

The goodwill justification often appears in franchise licensing. For the franchisor and franchisees, it is important that franchisees offer goods of uniform quality. Dissatisfaction by a customer with one franchisee could affect other franchisees' sales. The franchisor therefore has reason to insist on selling all supplies and equipment to its franchisees in order to guarantee uniform quality. For instance, the franchisor can respond by bundling the franchise rights to the franchisee's promise to sell only Coca-Cola as its soft drink.⁶²⁸ In *Kentucky Fried Chicken*, the Court found a permissible bundle that produced nationwide uniformity in the franchise product sold by hundreds of independently owned franchisees outweighed the restrictive effects.⁶²⁹

Notably, the requirement of less restrictive alternative is not absolute. The Supreme Court recognised in *Standard Station* that "[t]he only situation, indeed, in which protection of goodwill may necessitate the use of tying clauses is where specifications for a substitute would be so detailed that they could not practicably be supplied."⁶³⁰

In *Tuolumne*, the Court recently accepted a hospital's defense that the need to assure itself of the quality of those delivering babies by Caesarean sections justified its bundling arrangement.⁶³¹ The plaintiff offered a less restrictive alternative of reference letters rather than tied physicians. As for such letters, the Court found:

[I]t is difficult to see how a hospital [...] can assure itself that a physician has the surgical competence represented by Broad certification or the supervised experience of a 36-month residency program. Such a substitute [...] can be made only by the hospital's incurring substantial costs.⁶³²

⁶²⁷ *Eastman Kodak Co. v. Image Technical Services*, at 483-484.

⁶²⁸ *Martino v. McDonald's Sys.*, 625 F. Supp. 356 (N.D. Ill. 1985), holding the franchisor's requirement that franchisees sell Coca-Cola as their cola beverage not unlawful because the defendant had interest in maintaining uniformity of product across its franchise network (at 362-263).

⁶²⁹ *Kentucky Fried Chicken v. Diversified Packaging*, 549 F.2d 368 (5th Cir. 1977), at 379-381.

⁶³⁰ *Standard Oil Co. of Cal. v. United States*, at 306.

⁶³¹ *County of Tuolumne v. Sonora Community Hosp.*, 236 F.3d 1148 (8th Cir. 2001).

⁶³² *County of Tuolumne v. Sonora Community Hosp.*, at 1159-1160.

6.2.2.2. Trademark protection

A variant of the goodwill justification is trademark protection. The argument is often used as an additional justification for bundling.⁶³³ Likewise, it is usually relied upon in a franchise context.⁶³⁴ The leading case is *Sinclair Refining*, already decided in 1923.⁶³⁵ On the facts of the case, the Supreme Court refused to find a 'bundle.' The Court refused to apply the Clayton Act § 3 prohibition to Sinclair's contracts that bound its gas-pump lessees to pump Sinclair gas through the leased pumps. Although the contracts clearly bundled gasoline to gas pumps, the Court was impressed by the lessee's freedom to purchase his own gas pumps or rent them from others and to purchase gasoline freely in the open market.⁶³⁶

Subsequent cases tended to interpret *Sinclair* in terms of a right for a trademark owner to protect its mark.⁶³⁷ That is, Sinclair put its trademark on the pumps and could require that only Sinclair gasoline be sold under its brand name. Sinclair's insistence that a buyer who wished to use its trademark also took the product protected by the trademark was simply not a 'bundle' according to the court. Instead, it concerned one product: branded gasoline. A more recent example of the one-product approach is *Baskin-Robbins*.⁶³⁸ In this case, the franchisor was Baskin-Robbins, and its designee made the ice cream that was resold by the franchisee. The Baskin-Robbins trademark indicated the origin of the ice cream and therefore was not a product separate from the franchise license.

Unlike the determining of one product in *Sinclair Refining*, courts have also accepted the trademark protection argument as a justification for a bundle. For instance, in *Baker v. Simmons*, the Court accepted the defendant's bundle because there was a "legitimate business justification."⁶³⁹ Simmons offered a hotel format under the name 'Beauty rest.' Hotel owners could use the name for their hotel on the condition that they also purchased Simmons' mattresses that also displayed its name. The arrangement was justified because if hotel guests were to sleep on bad mattresses, this would affect Simmons' name, reputation and goodwill. "Where the clear impart of the sign program was to convey,"

⁶³³ See Treece, "Trademark Licensing and Vertical Restraints in Franchising Arrangements", U. Pa. L. Rev. 435 (1968).

⁶³⁴ See Klein, "The Law and Economics of Franchise Tying Contracts", J. L. & Econ. 345 (1985).

⁶³⁵ *FTC v. Sinclair Refining Co.*, 261 US 463 (1923). To the contrary, *Timken Roller Bearing Co. v. US*, 341 US 593, noting that "[a] trademark cannot be legally used as a device for the Sherman Act violation" (at 599).

⁶³⁶ *FTC v. Sinclair Refining Co.*, at 474.

⁶³⁷ *Times-Picayune v. United States*, at 607.

⁶³⁸ *Krehl v. Baskin-Robbins Ice Cream Co.*, 644 F.2d 1348 (9th Cir. 1982)

⁶³⁹ *Baker v. Simmons*, 307 F. 2d 458 (1st Cir. 1962), at 468.

the Court noted, "the message that a Beauty rest awaited the traveller inside, the Simmons Co. has ample justification in seeking to insure that the realization met this expectation."⁶⁴⁰

US case law also makes it clear that the argument is not unconditionally accepted. In *Jack Winter*, the Court made explicit that a "tie-in" may only be justified in order to protect the defendant's trade mark if this is advantageous for the public image of the mark.⁶⁴¹ The Court rejected the defendant's justification in *Chicken Delight* arguing that a "restraint of trade can be justified only in the absence of less restrictive alternatives."⁶⁴² The Court condemned Chicken Delight's requirement to pack together the bundling and bundled product by holding that "one cannot immunize a tie-in from the antitrust laws by simply stamping a trade-mark symbol on the tied product – at least where the tied product is not itself the tied product represented by the mark."⁶⁴³

6.2.3. Some remaining justifications

Courts have discussed and sometimes accepted justifications which cannot be categorised under the first two headings.

6.2.3.1. Cost savings

The Supreme Court recognised cost savings as a legitimate purpose of bundling in *Times-Picayune*. It sustained the defendant's policy of bundling morning and evening advertising as supported by "legitimate business aims" because it lowered production costs.⁶⁴⁴

In *Loew's*, the Court likewise concluded that cost savings could justify a bundle.⁶⁴⁵ Let us recall that the defendant only sold its films to television stations in block booking. This meant that television stations could not buy popular films without taking less popular films. The Court found Loew's conduct to constitute bundling. However, it allowed package discounts up to the amount of "all legitimate cost

⁶⁴⁰ *Baker v. Simmons*, at 469. For similar conclusion, *Susser v. Carvel Corp.*, 332 F. 2d 505 (2d Cir. 1964), *cert. den.*, 381 US 125.

⁶⁴¹ *Jack Winter Inc. v. Koratron Co. Inc.*, 375 F. Supp. 1 (E.D. Cal. 1974), at 63.

⁶⁴² *Siegel v. Chicken Delight, Inc.*, at 51.

⁶⁴³ *Siegel v. Chicken Delight, Inc.*, at 52.

⁶⁴⁴ *Times-Picayune v. United States*, at 622-624.

⁶⁴⁵ *United States v. Loew's, Inc.*, at 44. See also *Breaux Bothers Farms v. Teche Sugar Co.*, 21 F. 3d 83 (5th Cir. 1994), *cert. denied.*, 513 U.S. 963 (1994), holding that bundling may enable a plant to guarantee its production during slack periods, thus reducing fixed costs (at 89).

justifications."⁶⁴⁶ It is important to note that the Court rejected the government's position that only savings in distribution costs should be accepted. This means that sellers are allowed to offer products separately and at a package discount equal to the amount of the cost savings.

Occasionally, the Supreme Court has rejected the cost saving justification with arguing that bundling was not necessary to achieve those savings. In *Kodak*, the defendant submitted that it needed to be the sole service provider so as to control its inventory costs for replacement parts. The Court rejected Kodak's inventory costs explanation because breakdown rates seem to be unrelated to who is servicing the copiers.⁶⁴⁷ Kodak failed, the Court argued, to explain why it had to force replacement parts manufacturers and equipment owners not to sell to the ISOs, considering these requirements have no effect on Kodak's inventory costs.

6.2.3.2. Free riding

This justification has been discussed in *Kodak*. The defendant claimed that bundling would prevent ISOs from free riding its capital investment in equipment, parts and service.⁶⁴⁸ The Court rejected the free riding argument. Kodak did not dispute that respondents invested substantially in the servicing market by training repair workers and investing in parts inventory. Instead, Kodak stressed that the ISOs were free-riding and had failed to enter the equipment and replacement parts market.⁶⁴⁹ The argument was turned down. The Court concluded that "one of the evils proscribed by the antitrust laws is the creation of entry barriers to potential competitors by requiring them to enter two markets simultaneously."⁶⁵⁰

⁶⁴⁶ *United States v. Loew's, Inc.*, at 54-55.

⁶⁴⁷ *Eastman Kodak Co. v. Image Technical Services*, at 484-485. See also *J.L. Thomson Mfg. v. FTC*, 150 F. 2d 952 (1st Cir. 1945).

⁶⁴⁸ *Eastman Kodak Co. v. Image Technical Services*, in which Kodak stated that its bundling policies prevented ISOs from "exploiting the investment Kodak has made in product development, manufacturing and equipment sales in order to take away Kodak's service revenues" (at 485).

⁶⁴⁹ *Eastman Kodak Co. v. Image Technical Services*, at 486.

⁶⁵⁰ *Eastman Kodak Co. v. Image Technical Services*, at 451.

7. Conclusions

By tracing the legal development of the bundling analysis, it becomes clear that US law has undergone significant changes over time. The US case law has in practice always been more flexible than what might appear at first sight. The Supreme Court has treated bundles both with hostility and considerable tolerance over the last decades. At one point, it did not hesitate to take a strict approach *vis-à-vis* bundling. Not surprisingly, in the wake of that utterance, a number of decisions characterised bundling as illegal *per se*.

The Court has nonetheless never been willing to say of bundling, as it has of price fixing and other restrictions subject to the *per se* test, that it is always illegal, without proof of market power or anti-competitive effects. Even under the *per se* test, the Supreme Court left the door open to a reasonable justification of bundling. The requirement in *Jefferson Parish* that a detailed examination of the characteristics of the markets involved before prohibiting bundling has taken a great deal of substance from the *per se* test. This resulted in the modified *per se* test. *Microsoft III* undoubtedly highlights, in particular when markets are dynamic, the flaws of the current Supreme Court test. It has led to the most recent and vigorous call for the rule of reason test for bundling.

For the EU, the examination of US law provides useful material for inspiration. The Community standard for bundling should apply a multi-factor approach in order to determine whether products are components of a single product or are in distinct markets. In addition, any European standard should follow the US approach of applying an effects-based test that essentially requires market power in the tied market. Finally, the US case law may be a guiding tool for pro-competitive explanations as it has recognised a number of bundling-related efficiency considerations.

CHAPTER 4

BUNDLING UNDER ARTICLES 81 AND 82

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1. Introduction

This work now turns to EC law. The aim of this chapter is to discuss the conditions and rationale that the Community Courts and the Commission have applied for findings of anti-competitive bundling under European law.

My assessment covers Articles 81 and 82 EC. Although this thesis is principally about Article 82 EC, and attempts to suggest a modernised approach to bundling, it is essential to include Article 81 EC in this chapter for two reasons. First, there are common aspects of analysis under both provisions. For instance, separability of products as a basic condition for leveraging, or the leveraging rationale for prohibiting a bundling arrangement is the same under both articles. Second, Article 81 EC has already been reformed, favouring an economics-based approach. It may therefore give useful insights for developing a modernised bundling approach under Article 82 EC.

The examination in this chapter is three-fold. First, I will discuss the separate-product tests applied by the European Courts and the Commission. After discussing the advantages and disadvantages of those single-factor tests, I will propose to apply a multi-factor test in order to determine separability under EC law. The multi-factor test proposed is appraised by applying it to the facts of *Microsoft*. Second, as I likewise observed under US law, the discussion in this chapter reveals a gradual shift from an early and overly hostile approach to a more effect-based antitrust analysis. I will argue that EC law appears to apply a test resembling, to some extent, an *unstructured rule of reason*. The EC approach is ideologically based on the leveraging theory. I will also make a legal-economic assessment of the Commission's decisions in *Hilti*, *Tetra Pak II* and *Microsoft*. My examination suggests that the Commission could have reached different conclusions from those it did. Third, I will discuss the various bundling standards that have been proposed in the literature and case law. All these suggestions will be dismissed. I will propose to apply a *structured rule of reason*.

2. A dual system of *ex post* rules

Under the Treaty, Articles 81 and 82 EC are designed to tackle *ex post* restrictions of competition.⁶⁵¹ Article 81 EC is concerned with restrictions of competition that are the result of cooperation between two

⁶⁵¹ Article 81 EC prohibits "all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between member states and which have as their object or effect the prevention, restriction or distortion of competition within the common market." Article 82 EC prohibits "[a]ny abuse by one or more undertakings of a dominant position within the common market [...] in so far as it may affect trade between member states."

or more undertakings, whether horizontal or vertical.⁶⁵² Reading that provision quickly discloses its essentially bifurcated constitution. It consists of a broadly formulated prohibition of agreements that restrict competition, although an exemption may be granted from such a prohibition. The prohibition of Article 81(1) EC has direct effect. The recently adopted Regulation 1/2003 provides for the direct applicability of Article 81(3) EC.⁶⁵³ An agreement is caught by Article 81(1) EC if either its object or its effect is the restriction of competition.⁶⁵⁴ Where the object of the agreement is to restrict competition, there is no need to look further and to prove that its effect lies in the restriction of competition.⁶⁵⁵

In effect cases, it is important to consider the agreement in its legal and economic context.⁶⁵⁶ Out of this necessity developed the doctrine of the inherent restrictions and of ancillary restraints. Under the doctrine of inherent restrictions, restraints in an agreement do not run afoul of Article 81(1) because they are inherent to the activity pursued.⁶⁵⁷ The jurisprudence also indicates that restrictions on the parties' behaviour that is ancillary to the operation of a pro-competitive agreement cannot be said to restrict competition.⁶⁵⁸

However, the CFI expressly rejected in *Métropole* that the approach of considering the agreement in the legal-economic context amounted to an acceptance of a rule of reason *American style* under Article 81(1).⁶⁵⁹ Pro- and anti-competitive effects of an agreement must be balanced under Article 81(3) EC.⁶⁶⁰ For the purpose of this thesis, this suggests that there is no unstructured rule of reason under Article 81(1) EC.

⁶⁵² Cases 56 & 58/64, *Consten & Grundig v. Commission* [1966] ECR 299, p. 313.

⁶⁵³ See Article 1 of Council Regulation 1/2003 on the Implementation of the Rules on Competition Laid Down in Articles 81 and 82 of the Treaty, [2002] OJ 1/1.

⁶⁵⁴ Cases 56/65, *Société La Technique Minière v. Maschinenbau Ulm* [1966] ECR 234, p. 249; and, Cases T-374, 375, 384 & 388/94, *European Night Services v. Commission* [1998] ECR II-3141, at 136.

⁶⁵⁵ Cases 56 & 58/64, *Consten & Grundig v. Commission*, p. 314.

⁶⁵⁶ Case C-234/89, *Delimitis v. Henninger Bräu* [1991] ECR I-935, at 13-27.

⁶⁵⁷ Case 258/78, *Nungesser v. Commission* [1982] ECR 2015, at 56-58; Case 161/84, *Pronuptia* [1986] ECR 353, at 16-22; Case C-250/92, *Gottrup-Klim v. DLG* [1994] ECR I-5641, at 30-35; Cases C-115, 117/97, *Brentjens* [1999] ECR I-6025, at 56-61.

⁶⁵⁸ Case 42/84, *Remia v. Commission* [1985] ECR 2545, at 18-20; and, Case T-112/99, *Métropole Télévision v. Commission* [2001] ECR II-2459, at 104-117.

⁶⁵⁹ Case T-112/99, *Métropole Télévision v. Commission*, at 76. Earlier stated in Cases 56/65, *Société La Technique Minière v. Maschinenbau Ulm*.

⁶⁶⁰ Case T-112/99, *Métropole Télévision v. Commission*, at 77. The Court reiterated this approach to Article 81 EC in Case T-65/98, *Van den Bergh Foods v. Commission*, 23 October 2003, not yet reported, at 106-107.

Article 82 EC is essentially concerned with the repercussions on competition of behaviour by one company.⁶⁶¹ In order for Article 82 to apply, the undertaking must hold a dominant position. That position does not exist in a vacuum. It involves an actual market that must be delineated as both a product market and a geographically identifiable area.⁶⁶² Market shares are a solid indicator of whether or not dominance may be said to exist. The ECJ has held that persistent market shares exceeding 50% normally confer a dominant position on an undertaking.⁶⁶³ Whether dominance exists for any other market share is a question that concerns several other factors.⁶⁶⁴ Among such factors are the market shares of direct competitors, intellectual property rights, potential competition, and the degree of vertical integration of the undertaking. The undertaking in question must abuse this dominant position. Unlike its counterpart § 2 Sherman Act, Article 82 EC proscribes abusive actions of a dominant firm, not monopolisation by means other than superior skill, foresight and industry. Holding a dominant position is thus not a precondition under US law.

With regards to abuse, Article 82 EC contains an indicative list of abusive behaviour. The concept of abuse is an objective one.⁶⁶⁵ Whether or not the intention of the enterprise in question was to abuse its dominant position is irrelevant. The company in a dominant position should be aware of its position on the market and the accompanying special responsibility not to distort competition.⁶⁶⁶

In essence, two types of abuse exist.⁶⁶⁷ Exploitative abuse relates to abuse that aims to exploit the dominant position, whereas exclusionary abuse lies in attempting to affect market structure. Exploitative conduct seeks to reap the monopoly rents by, for instance, charging excessive prices or pricing below cost. Abuse seeking to keep other enterprises from challenging the dominant position is exclusionary.

As for exclusionary abuse, the ECJ made it clear in *Hoffman-La Roche* that it concerns behaviour that "through recourse to methods different from those governing normal competition" has the "effect of

⁶⁶¹ The wording of Article 82 EC ('one or more undertakings') lends to the view that the provision may be used to control also the abuses by oligopolists that collectively hold a dominant position. For a review of the concept of collective dominance, see Stroux, *EC Oligopoly Control* (EUI Thesis, 2003).

⁶⁶² See Commission Notice on the Definition of the Relevant Market for the Purpose of Community Competition Law, [1997] OJ C372/5, at 53-55.

⁶⁶³ Case C-62/86, *AKZO v. Commission* [1991] ECR I-3499, at 60.

⁶⁶⁴ Case 27/76, *United Brands v. Commission* [1978] ECR 207, at 66.

⁶⁶⁵ Case 85/76, *Hoffmann-La Roche v. Commission* [1979] ECR, at 91.

⁶⁶⁶ Case 322/81, *Michelin v. Commission (Michelin I)* [1983] ECR 3461, at 57.

⁶⁶⁷ See Jones and Sufrin, *EC Competition Law* (Oxford, 2004), using the terminology "exploitative" and "anti-competitive" (pp. 270-271); and, Bellamy and Child, *European Community Law of Competition* (London, 2001), p. 720. For a different categorisation, see Eilmansberger, "How to Distinguish Good from Bad Competition under Article 82 EC: in Search of Clearer and More Coherent Standards for Anti-Competitive Abuses", *CMLRev.* 129 (2005), p. 132; and, Goyder, *EC Competition Law* (Oxford, 2003), p. 283.

hindering the maintenance of the degree of competition still existing in the market or the growth of that competition."⁶⁶⁸ According to the Commission, a dominant firm is still entitled to compete on the merits.⁶⁶⁹ Competing on the merits is when the enterprise's behaviour is economically justified.⁶⁷⁰

Unlike Article 81(3) EC, Article 82 EC does not provide for an explicit legal basis for invoking justifications. Arguably, this is immaterial as the purpose of Article 82 EC cannot be to deprive dominant companies of the possibility to drive out their rivals by lawful objective means. As early as *United Brands* and *Hoffman-La Roche*, the ECJ has recognised the possibility of considering whether the conduct of a dominant company is "justified."⁶⁷¹ If behaviour is justified, abuse simply does not exist because the alleged abusive behaviour is objectively justified.

3. The Treaty and bundling in general

A first reading of Articles 81 and 82 EC reveals that the drafters of the Treaty were already concerned with bundling and related issues.⁶⁷² Both provisions consider that there is a prohibited restriction of competition where the conclusion of contracts is made "subject to acceptance by other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts."⁶⁷³

The terms 'supplementary obligations' suggest that a main and a second supplementary product are required,⁶⁷⁴ as is often the case. Guesthouses offer the service of renting a room with breakfast; copying machines are tied to the supply of paper; and, a manufacturing process for meat sausages may be linked to the casings used in that process. Today the links deriving from technological developments in general and digitalisation in particular can blur this distinction. For instance, firms active in electronic communications offer bundled packages of lines, internet access, digital TV or hardware. Identifying the main and secondary markets becomes more and more complex. In my view, it is therefore advisable *not* to focus on supplymentarity. Instead, it is important to identify two distinct markets. The main market is generally equated with the product market being dominated by the undertaking under investigation.

⁶⁶⁸ Case 85/76, *Hoffmann-La Roche v. Commission*, at 91 See also Case 322/81, *Michelin I*, at 57.

⁶⁶⁹ Case IV/30.698, *ECS/AKZO* [1985] OJ L 374/1, at 81.

⁶⁷⁰ Case T-203/01, *Michelin v. Commission (Michelin II)*, decision of 30 September 2003, not yet reported, at 97.

⁶⁷¹ Case 27/76 *United Brands*, at 184; and, Case 85/76 *Hoffmann-La Roche*, at 90.

⁶⁷² Notably, bundling can also be addressed under Article 28 EC: Case C-17/92, *Fidicine* [1993] ECR I-2239, regarding tying the license to American films with the distribution of Spanish films.

⁶⁷³ See Articles 81(1)(e) and 82(d) EC.

⁶⁷⁴ See Jansen, *Die Kopplungsverträge im Recht der Wettbewerbsbeschränkungen* (Berlin, 1968), noting "[e]s wird also zwischen einer Hauptleistung, die den wesentlichen inhalt des Vertrages ausmacht, und der zusätzlichen Leistung zu unterscheiden sein" (p. 159).

Both Articles 81 and 82 EC speak of 'acceptance.' The term suggests that parties must have agreed to the bundle. However, this narrow-technical interpretation must be dismissed. Bundling is not limited to those cases of "rechtlicher Zwang," as the German Federal High Court recently noted in a national bundling case.⁶⁷⁵ Rather, the *coercive* nature to accept the bundle must be the focus of attention. As Faull and Nikpay write, this is a "crucial element" of the abuse.⁶⁷⁶ The rationale for this is simple. In the absence of a coercive element, a bundle cannot have an impact on competition. It is important to distinguish coercion to *accept* from coercion to *use* the tied product. Coercion to accept arises if an undertaking denies customers the realistic choice of buying the components of the bundle separately. The language of Article 82 EC would suggest that, in order to demonstrate 'acceptance,' it is not necessary to show that customers are forced to use the tied product. Whether customers are forced to use the tied product is relevant for assessing the actual impact of the tie on competition.

Coercion to accept can manifest itself in different forms. It typically consists of a contractual clause, but may also be the result of a refusal to supply or technical bundling. A good example of technical bundling is the bundle of Windows with Windows Media Player (WMP).⁶⁷⁷ OEMs license Windows from Microsoft with WMP pre-installed. They may install alternative media players on Windows but only *in addition* to WMP. Moreover, there are no readily technical means for consumers to uninstall WMP. Financial coercion is all the more interesting. A manufacturer may be tempted to reduce or even refuse discounts on a particular product to customers who refuse to purchase a second product from it. It may also grant or increase discount for customers purchasing the bundle. As a result, the pricing behaviour may be deemed to be the functional equivalent of an explicit bundle and might therefore attract the same odium as an outright tie.

The Court initially took the view in *Hoffmann-La Roche* that a "strong incentive" to buy the bundle was sufficient to make a bundling case.⁶⁷⁸ A similar reasoning was followed by the Commission in *Michelin I*.⁶⁷⁹ The Commission found that Michelin had abused its dominant position by granting an extra bonus on purchases of tyres for heavy vehicles. The bonus was offered on the condition that dealers would achieve a minimum sales target of tyres. In the Commission's view, the extra bonus was intended to

⁶⁷⁵ Translation: legal binding force. See *AOL v. Deutsche Telekom*, KZR 1/03, judgment of 30 March 2004, p. 10.

⁶⁷⁶ See Faull and Nikpay, *The EC Law of Competition* (Oxford, 1999), p. 167.

⁶⁷⁷ Case COMP/37.792, *Microsoft*, decision of 23 March 2004, not yet officially published, at 310, 827-829.

⁶⁷⁸ Case 85/76, *Hoffmann-La Roche v. Commission* [1979] ECR 461, at 111.

⁶⁷⁹ Case IV/29.491, *Bandengroothandel Friescheburg/Nederlandsche Banden-Industrie Michelin (Michelin I)* [1981] OJ L 353/33.

compel dealers to make a special of heavy-vehicle tyres. It contended that this commercial practice was similar to that covered by Article 82(d) EC.

On appeal, the ECJ made it clear in *Michelin I* that an *incentive* is not adequate. It explained that discounts by dominant undertakings may be abusive where they "remove or restrict the buyer's freedom to choose his sources of supply."⁶⁸⁰ In my view, the proper test should indeed examine whether customers are left a meaningful commercial choice of buying the products separately. Such a choice is denied if the separate price for either the tying or tied product equals or exceeds the package price.

This is also the legal position under US law. In *Microsoft III*, the Court of Appeals noted that competition is restricted when either the products are sold only in a bundle or the tying product "though offered separately is sold at a bundled price, so that the buyer pays the same price whether he takes the tied product or not."⁶⁸¹

The Commission also appears to emphasise this lack of choice. It qualified the reduction of discounts in *Hilti* as illegal because they were found to "leave the customer with no choice over the sources of his nails."⁶⁸² A similar approach was discernable in *Digital*.⁶⁸³ The case arose from complaints lodged by third-party maintenance companies regarding Digital's pricing practices for its computers. The Commission found that offering a package price for hardware and software support below the sum of the prices for the component services constituted illegal bundling.⁶⁸⁴ As part of the settlement, Digital would refrain from charging prices that would make it uneconomical for customers to purchase component services from rival companies.

At the same time, the Commission recognised that efficiencies may be achieved. Digital was allowed to give its customers a maximum discount of 10% in order to "allow cost savings or other benefits to be passed on to system users while ensuring the maintenance of effective competition in the supply of hardware services."⁶⁸⁵ That the Commission appears to concentrate on the lack of choice was expressly

⁶⁸⁰ Case 322/81, *Michelin I*, at 73.

⁶⁸¹ *US v. Microsoft*, 235 F.3d 34 (D.C. Cir. 2001), at 87. See also *US v. Loew's*, 371 US 38 (1962), at 43 and *Data General Corp. Antitrust Litigation*, 490 F. Supp. 989 (N.D. Cal. 1980), at 1010-1011.

⁶⁸² Case IV/30.787, *Eurofix-Bauco v. Hilti*, at 75.

⁶⁸³ See 27th Report on Competition Policy (1997), p. 69. For more details, see Andrews, "Aftermarket Power in the Computer Services Market: The Digital Undertaking", ECLR 176 (1998), p. 179; and, Dolmans and Pickering, "The 1997 Digital Undertaking", ECLR 108 (1998), p. 110.

⁶⁸⁴ See IP/97/868, 8 October 1997.

⁶⁸⁵ See IP/97/868, 8 October 1997.

noticeable in *Microsoft*. In its decision, it noted the importance of assessing whether "customers are not given the choice of acquiring the tying product without the tied product."⁶⁸⁶

There has been some discussion whether or not customers should pay *extra* for the supplementary obligation. For instance, Microsoft rejected the applicability of Article 82(d) EC as WMP is distributed with Windows for free.⁶⁸⁷ This view is arguably to be dismissed. In Article 82(d) EC, there is no reference to any element of 'paying' for the acceptance of the supplemental obligation. In fact, customers can be coerced into accepting the tied product even if they have not paid for it. Whether customers have actually paid is relevant to the competition-impact analysis. Following Microsoft's line of reasoning would conflate the element of 'acceptance' and the important assessment of bundle's impact on competition.

4. Critical-historical overview

4.1. The early cases on bundling

Until the mid 70s, EC law has hardly paid any attention to bundling arrangements. In the earliest cases, the Commission took a highly formalistic approach. Any restriction in an agreement was illegal without explaining why or assessing the actual effects of the opposed restriction.

In *Glass Containers*, for instance, it held that a system whereby competitors agreed to apply uniform delivery prices to the exclusion of any other price system has the *object* of nullifying any competitive advantage that a producer of glass containers might gain from the proximity to his customers.⁶⁸⁸ Such a system meant in fact that the seller imposed on the user the supplementary obligation to accept the delivery to his location - something not connected to the sale of goods. According to the Commission, this was an infringement of Article 81(1) EC. Another case concerned the European distribution network of Campari. Obliging licensed manufacturers to supply the original product rather than their own when supplying diplomats, ships victuallers and foreign armed forces "prevent[ed] the licensees from supplying bitter which they have manufactured themselves to these consumers", and constituted therefore a restriction of competition under Article 81(1).⁶⁸⁹

⁶⁸⁶ Case COMP/37.792, *Microsoft*, at 826.

⁶⁸⁷ Case COMP/37.792, *Microsoft*, at 830.

⁶⁸⁸ Case IV/400, *Glass Containers* [1974] OJ L 160/1.

⁶⁸⁹ Case IV/28.173, *Campari* [1978] OJ L170/69, at 34.

Like under US law, the early cases often concerned licensing agreements. The leveraging theory appears to be crucial to the analysis under EC law. One important case in this context is *Vaessen/Moris*.⁶⁹⁰ Mr Moris was a Belgian patent holder for a manufacturing device for meat sausages, in particular *saucissons de Boulogne*. He was also the principal shareholder of ALMO, a company which manufactures and sells synthetic casings for sausages. Moris' patent did not cover the casings. Mr Moris gave ALMO a licence to work his patent. ALMO sublicensed to Belgian sausage manufacturers, including Impérial and Lovendegem. These sub-licensees were allowed to use Moris' patented process free of charge on the condition that they bought all their casings from ALMO. Vaessen, a Dutch competitor of ALMO, had difficulty entering the market for casings for *saucissons de Boulogne*, as sausage producers were committed to ALMO.

The Commission found that the bundling provision deprived "the sub-licensee of its business freedom to obtain supplies from other undertakings, perhaps on more favourable terms as in the case of its purchases from Vaessen."⁶⁹¹ It explained that "[t]he obligation on the part of Impérial to obtain supplies of casings exclusively from ALMO prevents Impérial from obtaining supplies from competitors in other Member States, such as Vaessen in the Netherlands."⁶⁹²

As observed by Waelbroeck, it is interesting to note how the Commission applied the same criteria as the US Supreme Court in prohibiting the early cases.⁶⁹³ The Commission took into account both the market power of the patent holder and the effect on the market of the clause. Like the US courts, the Commission's application of these criteria was flawed for two reasons.

First, the Commission did not consider the possibility of a dominant position being held by ALMO explicitly. Yet, it referred to the size of the national market share for the relevant products it held. It was stressed that ALMO supplied at least two thirds of the market in casings for *saucissons de Boulogne*. This fact, however, does not say much about the market power held by the patent holder. When evaluating the feasibility of leveraging, the possibility of ALMO enjoying dominance should have been taken into consideration.

⁶⁹⁰ Case IV/29.290, *Vaessen/Moris* [1979] OJ L19/32.

⁶⁹¹ Case IV/29.290, *Vaessen/Moris*, at 15.

⁶⁹² Case IV/29.290, *Vaessen/Moris*, at 18.

⁶⁹³ See Waelbroeck, "The Compatibility of Tying Agreements with Antitrust Rules: A Comparative Study of American and European Rules", Oxf. YEL 39 (1987), pp. 50-51.

Second, one could point out the fact that ALMO could have linked the casings to its machines with the objective to meter the use of these machines. In my view, this observation is confirmed by the facts of the case. ALMO charged nothing for the use of the manufacturing device. It was presumably less costly for ALMO to tie the use of the device to the casings it produces, rather than fitting a metering gadget to its patented device.

One last aspect to be considered is the foreclosing effect of the bundling clause. It is true that ALMO's bundle increased the difficulty for Vaessen to penetrate the market independently. However, the Commission appears to have considered an adverse effect on Vaessen as the presumptive equivalent of an adverse effect on competition. The Commission stressed that ALMO's clause prevented Imperial and others from obtaining supplies from competitors in other Member States. This argument reflects the leveraging theory in the long term. The Commission's finding may well have been the case, but this must be demonstrated explicitly through some kind of empirical evidence. In its decision, the Commission limited the relevant market to only casings for *saucissons de Boulogne* exclusively. For that market, it stressed that ALMO supplied at least two thirds of that market, and that its customers comprised a number of large manufacturers.

The Commission took the same rigid position in *Velcro/Aplix*.⁶⁹⁴ In this decision, the Commission objected to the requirement that the licensee of an exclusive technology was required in order to buy its machinery equipment from a particular supplier who had developed the technology. Assuming a restrictive effect on competition, it condemned the provision: "At least with effect from 1977, when it may be considered that substitute products were on the market [...] such an obligation prevents the licensee from obtaining the equipment from other manufacturers in the Common market, possibly on more favourable terms."⁶⁹⁵

Without making a factual-economical analysis, the Commission wrote: "Besides restricting the freedom of the licensee, this obligation also significantly affects the position of third parties, especially loom builders, who are thereby deprived of an important potential customer."⁶⁹⁶

In *Windsurfing*, the Court upheld the harsh approach by the Commission towards bundling.⁶⁹⁷ Windsurfing owned a German patent to sailboard rigs. Its licensees were allowed to manufacture and

⁶⁹⁴ Case IV/4204, *Velcro/Aplix* [1985] OJ L233/22.

⁶⁹⁵ Case IV/4204, *Velcro/Aplix*, at 52.

⁶⁹⁶ Case IV/4204, *Velcro/Aplix*, at 53-54 (emphasis added).

⁶⁹⁷ Case C-193/83, *Windsurfing v. Commission*, [1986] ECR 611.

distribute the rigs only for boards approved by Windsurfing, or as complete sailboards. Without engaging in a factual-economic analysis of the case, the Commission came to two conclusions.⁶⁹⁸ The bundling clause restricted the licensees' freedom to decide whether they wanted to act as suppliers of only sailboards of their production or also as suppliers of rigs separately from third parties.⁶⁹⁹ In addition, suppliers of other sailboards were prevented from supplying such boards to licensees or from completing their own range with licensees's rigs.

On appeal, the ECJ agreed with the Commission. It likewise took a highly formalistic approach and condemned the obligation to sell the rigs only in conjunction with the boards approved by the licensor was a restriction of competition.⁷⁰⁰ Because the German patent only covered the rig, the clause was not indispensable to the exploitation of the patent. It concluded that the bundling provision was "*of such a nature* as to restrict competition."⁷⁰¹ As one critical commentator put it, the judgment as whole is "based on the assumption that there is something inherently anti-competitive in the patent monopoly and that patent licenses [...], even when arguably vertical in nature, differ fundamentally from distribution arrangements and warrant stricter treatment."⁷⁰²

The old block exemptions on licensing agreements were also strict for bundling so long as it was not required for a proper technical exploitation of the licensed technology.⁷⁰³ The old Regulation 2349/84 on Patent Licensing exempted under Article 81(3) the obligation to procure goods and services from his licensor or designee, insofar as they "are necessary for a technically satisfactory exploitation of the licensed invention."⁷⁰⁴ This form of bundling was generally considered not to fall within Article 81(1).⁷⁰⁵

However, the Regulation blacklisted bundling on two important instances.⁷⁰⁶ In the line of the licensing cases discussed, the following provisions were prohibited: "[where the] licensee is charged royalties on

⁶⁹⁸ See Advocate General Lenz in Case C-193/83, *Windsurfing v. Commission*, noting that the Commission "neglected to carry out a detailed market study" (p. 620).

⁶⁹⁹ Case IV/29.395, *Windsurfing International* [1983] OJ 19/32.

⁷⁰⁰ C-193/83, *Windsurfing v. Commission*, at 56-57.

⁷⁰¹ C-193/83, *Windsurfing v. Commission*, at 59 (emphasis added).

⁷⁰² See Venit, "In the Wake of Windsurfing: Patent Licensing in the Common Market", *Fordham Corp. L. Inst.* 517 (1986), pp. 560-561.

⁷⁰³ For an older but similar view, see Commission Notices on Patent Licenses and Commercial Agents, [1962] OJ C2922/62, considering that Article 81(1) EC did not apply to quality standards or obligations to procure supplies of certain products imposed on the licensee "in so far as they are indispensable for the technically perfect exploitation of the patent."

⁷⁰⁴ See Article 2(1)(1) of Commission Regulation 2349/84 on the Application of Article 85(3) of the Treaty to Certain Categories of Patent Licensing Agreements, [1984] OJ L219/15.

⁷⁰⁵ See Pickard, "The Commission's Patent Licensing Regulation – A History", *ECLR* 158 (1984), p. 161.

⁷⁰⁶ See Article 3(3) of the Commission Regulation 556/89 on the Application of Article 85(3) of the Treaty to Certain Categories of Know-How Licensing Agreements, [1989] OJ L61/1, providing that the Regulation did not apply where the licensing agreement accepted "quality specifications or further licenses [...], unless such licenses, quality specifications,

products which are not entirely or partially patented or manufactured by means of a patented process."⁷⁰⁷ Nor was the licensor allowed to impose ancillary obligations with respect to further licenses, "unless such patents, products or services are necessary for a technically satisfactory exploitation of the licensed invention."⁷⁰⁸

Thus, early EC law prohibits the owner of an intellectual or industrial property right from taking advantage of the monopoly in order to extend it to products that do not deserve the legal protection of the intellectual or industrial property right itself. Leveraging was often assumed, even if sufficient market power might not have been achieved. Nor were the negative effects on competition in the tied market properly assessed.

4.2. The *per se* test of the 80s

In the 80s, the hostile treatment of the early cases appears to have been carried over into a general *per se* ban against bundling. Under EC law, market dominance necessary for a successful leverage was easily assumed, and assessing the foreclosure of rivals in the tied market was not essential. For Article 81 EC, old Regulation 1984/83 on Exclusive Purchasing expressly blacklisted bundling clauses. This was regardless of whether the distributor was dominant in the markets involved.⁷⁰⁹

For Article 82 EC, the mere fact that a dominant company bundled two products, and that trade was affected, was apparently sufficient for the Commission to condemn an undertaking for the abuse of that position. In *British Sugar*, for instance, it was not essential to establish that British Sugar's bundling practice had any significant effect on the tied market.⁷¹⁰ The case concerned British Sugar and Napier Brown. British Sugar was dominant in the UK sugar market for both retail and industrial sale, while Napier Brown was active in the UK sugar retail market. British Sugar refused to supply sugar to its customers unless they agreed to have it delivered by British Sugar itself or by firms appointed by it. British Sugar's refusal to give its customers the option of purchasing sugar on an ex-factory or delivered price basis was held abusive under Article 82 EC, as it resulted in tying the delivery of sugar to the

goods or services are necessary for a technically satisfactory exploitation of the licensed technology or for ensuring that the production of the licensee conforms to the quality standards that are respected by the licensor and other licensees."

⁷⁰⁷ See Article 3(4) of Regulation 2349/84.

⁷⁰⁸ See Article 3(9) of Regulation 2349/84.

⁷⁰⁹ See 3(e) of Commission Regulation 1984/83 on the Application of Article 85(3) of the Treaty to Categories of Exclusive Purchasing Agreements, [1983] OJ L173/5.

⁷¹⁰ Case IV/30.178, *Napier Brown v. British Sugar* [1988] OJ L 284/41.

supply of sugar. The Commission found the mere fact that British Sugar had "[r]serv[ed] for itself the separate activity of delivering sugar" sufficient grounds to claim anti-competitive effects.⁷¹¹

The same *per se* prohibition was noticeable in *London European/Sabena*.⁷¹² In that case, Sabena was willing to grant access to its computerized reservation system only on the condition that London European Airways would sign a ground handling contract with it. Without making an analysis of the effects on competition, the Commission decided that Sabena had abused its dominant position on the market for computerised flight reservation in Belgium. Bundling access to the reservation system with signing a contract for ground handling was illegal because the contracts are "not connected" and the latter contract is "not related to the subject matter" of the first contract.⁷¹³

The ECJ appears to have confirmed the *per se* approach in two instances. In *Télémarketing*, the ECJ was asked by a Luxembourg court to rule on bundling through the variant of refusal to supply the connected products on a standalone basis.⁷¹⁴ The conflict arose between national television monopolist CLT and CBEM that conducted telemarketing operations broadcasted on CLT's channels. CLT refused to renew the television advertisement contract unless CBEM would use a CLT or one of its subsidiaries' telephone numbers for its marketing operations. Essentially, CLT was attempting to bundle television advertisement services to telemarketing services.

In its judgment, delivered in 1985, the ECJ held that it was an abuse for CLT to insist that advertisers should channel their advertising through its advertising manager or agency appointed by it. Considering that the arrangement amounted to monopoly extension from one market into a neighbouring market, the Court appears to have relied on the leverage theory.⁷¹⁵ Notably, the threshold for application was very low. As CLT's practice "intended to reserve" any telemarketing operation "with the possibility of eliminating all competition" by its competitors, it amounted to an abuse prohibited under Article 82 EC.⁷¹⁶

⁷¹¹ Case IV/30.178, *British Sugar*, at 71.

⁷¹² Case IV/32.318, *London European-Sabena*, OJ [1988] L 317/47.

⁷¹³ Case IV/32.318, *London European-Sabena*, at 31.

⁷¹⁴ Case 311/84, *Centre Belge d'Études de Marché Télémarketing v CLT (Télémarketing)* [1985] ECR 3261.

⁷¹⁵ Case 311/84, *Télémarketing*, noting that "an abuse within the meaning of Article [82] is committed where, without objective necessity, an undertaking holding a dominant position on a particular market reserves to itself [...] an ancillary activity which might be carried out by another undertaking as part of its activities on a neighbouring but separate market, with the possibility of eliminating all competition from such undertaking" (at 27).

⁷¹⁶ Case 311/84, *Télémarketing*, at 26.

The Court was even more explicit in *Alsatel*.⁷¹⁷ In that case, it considered an after-sales bundle in reference to a French court. The case involved the dispute between the regional telecommunications provider Alsatel and the temporary employment agency Novasam. The parties disagreed over outstanding payments under contracts for rental and maintenance of telephone installations. The contracts required Alsatel's customers to deal exclusively with Alsatel for any changes, moves, extensions or modifications of the installation. The French court asked the ECJ whether Alsatel's contracts were sufficient evidence of abuse of a dominant position in the sense of Article 82 EC, given Alsatel's share in the regional market. The Court noted that:

[a]lthough the obligation imposed on customers to deal exclusively with the installer as regards any modification of the installation may be justified by the fact that equipment remains the property of the installer, the fact that the price of the supplements to the contract [...] is unilaterally fixed by the installer and the automatic renewal of the contract for a 15 year term [if certain conditions are met] may constitute unfair trading conditions as abusive practices by Article [82] of the Treaty if all the conditions for the application of that provision are met.⁷¹⁸

The ECJ went on to describe the necessary conditions to the *per se* approach adopted in other cases. For the Court, these requirements were (1) that trade between Member States must be affected and (2) that Alsatel must be found to be dominant in the relevant market.⁷¹⁹ Importantly, *no mention* was made of any requirement to assess the effects of Alsatel's behaviour. Foreclosure was thus not essential for the Court. Of course, it was ultimately for the national court to determine whether those conditions were satisfied as a matter of fact.

In conclusion, EC law appears to have adopted in the 80s a *per se* approach towards bundling, based on the leveraging rationale.⁷²⁰

⁷¹⁷ Case 247/86, *Société alsacienne et lorraine de télécommunications et d'électronique v. Novasam (Alsatel)* [1988] ECR 5987.

⁷¹⁸ Case 247/86, *Alsatel* [1988] ECR 5987, at 10.

⁷¹⁹ Case 247/86, *Alsatel* [1988] ECR 5987, at 11-12.

⁷²⁰ Others have stressed for instance the *arbitrariness* of bundling of two items. See Advocate General Tesouro in Case C-320/87, *Ottung v. Klee & Weilbach* [1989] ECR 1185, noting that tying in licensing agreements is "one form of which consists precisely in *arbitrarily* making the permission to exploit commercially a patented product conditional upon a commitment by the other party to enter into a licence agreement and to pay a royalty for an unpatented product whose use is unnecessary for the exploitation of the patented product" (at 18) (emphasis added).

4.3. The modified *per se* approach of the 90s

During the 90s, bundling has been investigated in a string of cases. Some minor but nevertheless significant cases have been informally settled. The only public information comes from the Commission press releases, which should be considered with due care.

For instance, Coca-Cola was accused of abusing its dominant position on the Italian market for colas by granting various rebates to large distribution chains. The Commission objected specifically to Coca-Cola's range rebate for distributors that would buy additional drinks by Coca-Cola along with their purchases of the Coca-Cola drink. Coca-Cola omitted this rebate and other rebates from its agreements with distributors. The Commission believed that the removal would create "fuller opportunities of access to commercial outlets selling beverages" for the competition.⁷²¹

In 1996, Nielsen was found to have abused its dominant position in the market for retail tracking services by applying discounts in exchange for commitments from customers to call upon its services in a wide range of countries. The Commission feared that Nielsen's behaviour would prevent rivals from establishing "a competitive presence" in the relevant market.⁷²² In 1998, the Commission worried about the requirement contracts used by Nordion. For the supply of a base product for radiopharmaceuticals used in nuclear medicine, Nordion required its European customers to also purchase other materials from it. The contracts prevented rivals from "developing and ultimately even from maintaining its presence on the market" and discouraged "the entry of possible new competitors."⁷²³

In my view, the formal decisions and judgments in those days are difficult to comprehend. Like the ancient Roman visage of Janus, EC law was two-faced, with each one poised in opposite directions. For one, it confirmed by and large the *per se* test that was established in the 80s. On the other hand, it appears to have left the door ajar to modifications of that approach. For instance, dominance was assessed more economically and even justifications for bundling were considered.

The doubled-faced approach is based on four interrelated features. Of course, the first feature is the confirmation of the *per se* label tagged to bundling. *Hilti* and *Tetra Pak II* are important cases to consider here. *Tetra Pak* is even called the "poster child" for anti-competitive bundling.⁷²⁴ *Hilti* related to the

⁷²¹ See IP/90/07, 9 January 1990.

⁷²² See 26th Report on Competition Policy (1996), p. 64.

⁷²³ See 28th Report on Competition Policy (1998), at 74.

⁷²⁴ See Nalebuff, *Bundling, Tying and Portfolio Effects Part II* (DTI paper, 2003), p. 16.

temporal bundling of consumables.⁷²⁵ It concerned the supply of nail guns and associated nails and cartridge strips that are specifically adapted to a particular brand of nail gun. Hilti was the largest manufacturer of nail guns in the EU. It had patent protection for its guns, cartridge strips and nails. Despite this, a number of other companies supplied Hilti-compatible nails. Rivals complained to the Commission that Hilti was engaging in abusive behaviour that limited their ability to compete in the market for Hilti-compatible nails. The practices included making the sale of nails conditional upon the sale of cartridge strips, refusal to honour guarantees if customers used nails supplied by third parties, the refusal to supply cartridge strips to customers who would resell them, and frustrating the grant of legitimate licenses of right available under its patents.

In its defence, Hilti claimed to supply powder-actuated fastening (PAF) guns instead of separate components.⁷²⁶ Contrary to this claim, the Commission found that Hilti was dominant in three relevant product markets: nail guns, Hilti-compatible cartridge strips and Hilti-compatible nails. For this conclusion, it stressed the lack of functional interchangeability between the components of the bundle. The Commission concluded that tying the sale of cartridge strips to the sale of nails and the general policy of refusing to honour its guarantee was abusive under Article 82 EC. Basically confirming the *per se* test, the Commission noted that: "These policies leave the consumer with no choice over the source of his nails and *as such* abusively exploit him. *In addition*, these policies all have the object or effect of excluding independent nail makers who may threaten the dominant position Hilti holds."⁷²⁷

Although the Commission stated that Hilti had "severely" restricted the market penetration by independent suppliers of Hilti-compatible consumables, this was not based on an extensive analysis.⁷²⁸

The CFI agreed with the Commission that there were three separate products, not one integrated system.⁷²⁹ Important to the Court was the presence of independent manufacturers of Hilti-consumables.⁷³⁰ The findings of the CFI were upheld by the ECJ.⁷³¹ As Advocate General Jacobs noted, "[i]f Hilti is dominant in [the nail guns] market, it is clear that that can *only* serve to reinforce its position in the markets for components such as cartridges and nails."⁷³²

⁷²⁵ For more details on this case, see Farr, "Abuse of a Dominant Position – The Hilti Case", ECLR 174 (1992).

⁷²⁶ Case IV/30.787, *Eurofix-Bauco v. Hilti*, at 57.

⁷²⁷ Case IV/30.787, *Eurofix-Bauco v. Hilti*, at 75 (emphasis added).

⁷²⁸ Case IV/30.787, *Eurofix-Bauco v. Hilti*, at 74.

⁷²⁹ Case T-30/89, *Hilti AG v. Commission* [1990] ECR II-163.

⁷³⁰ Case T-30/89, *Hilti*, at 66-67.

⁷³¹ Case C-53/92P, *Hilti AG v. Commission* [1994] ECR I-667.

⁷³² See Advocate General Jacobs, in Case C-53/92P, *Hilti*, at 19 (emphasis added).

The approach in *Tetra Pak II* was similar to the reasoning of *Hilti*.⁷³³ The Commission found that Tetra Pak was dominant on the markets in aseptic machines and cartons intended for the packaging of liquid foods in the EU. Tetra Pak had argued to supply an integrated distribution system for liquid and semi-liquid foods. The relevant market should include all ways of packaging all sorts of liquid food products, such as glass and plastics bottles and metal tins for milk, fruits juices or mineral waters. Focusing on the differences between the various packaging containers, the Commission rejected Tetra Pak's plea because its cartons, for instance, could not be used for fizzy drinks.⁷³⁴ It held that Tetra Pak had abused its position contrary to Article 82 EC both on the aseptic markets and on the markets in non-aseptic machines and cartons. Tetra Pak was fined for bundling the purchase of its carton packaging machines to the purchase of cartons, reserving itself the exclusive right to maintain and repair equipment and to supply spare parts, and withholding guarantees on equipment unless purchasers complied with all of the preceding contractual obligations.

The Commission contended that Tetra Pak's behaviour was intended to bind customers to the Tetra Pak group and eliminate trade in the goods that had been supplied to them.⁷³⁵ Sticking to the *per se* approach, it argued that Tetra Pak had imposed numerous obligations on its customers that had "no link with the purpose of the contracts."⁷³⁶ The exclusivity requirement for Tetra Pak maintenance services, for instance, "close[d] the door to any competitor" and deprived customers of "any freedom to make his own choice" and of "any possibility of having maintenance and repair services provided by his own technical staff."⁷³⁷ In her typical style, Korah elegantly summarised the objection against this approach: "[o]fficials should not have discretion to dictate the sole purpose of agreements in the name of competition without analysing in what way competition is restricted. It is of the nature of contracts to restrain conduct that would otherwise be legal."⁷³⁸

The Commission's rejection of the integrated-product claim was upheld by the CFI.⁷³⁹ Suggesting a *per se* test, the Court noted that, even if it is the customary practice in a particular market, a dominant company is not allowed to tie products together as "usage that is acceptable in a normal situation, on a competitive market, cannot be accepted in the case of a market where competition is already

⁷³³ Case IV/31.043, *Elopak/Tetra Pak (Tetra Pak II)* [1992] OJ L72/1.

⁷³⁴ Case IV/31.043, *Tetra Pak II*, at 6-13.

⁷³⁵ Case IV/31.043, *Tetra Pak II*, at 105.

⁷³⁶ Case IV/31.043, *Tetra Pak II*, at 106.

⁷³⁷ Case IV/31.043, *Tetra Pak II*, at 108.

⁷³⁸ See Korah, "The Paucity of Economic Analysis in the EEC Decisions on Competition *Tetra Pak II*", CLP 148 (1993), p. 168.

⁷³⁹ For details on the appeal, see Levy, "Tetra Pak II: Stretching the limits of Article 86?", ECLR 104 (1995).

restricted.⁷⁴⁰ Before the ECJ, Tetra Pak claimed that the CFI erred in law by holding that Article 82(d) EC prohibited only where the supplementary obligations imposed had no connection with the subject of the contract by their nature or commercial usage.

The ECJ confirmed the CFI's judgment. It held that the reasoning behind CFI finding no natural link between the components was correct.⁷⁴¹ It also held that, as Article 82 provides for an exhaustive list of examples, bundling may constitute an abuse *even* if there is a natural link or the tied sales are in accordance with commercial usage.⁷⁴² Advocate General Colomer was even more trenchant in his analysis. He noted that bundling by a dominant undertaking is abusive "as it deprives the purchaser of choice as to his possible sources of supply and limits access to the market by other producers. [...] [i]t is *only* in exceptional cases that tied sales by a dominant undertaking may be justified by the nature of the products or commercial usage."⁷⁴³

The second feature of the EC approach during the 90s relates to potential justifications for bundling. EC law appears to have *in principle* accepted the possibility of justifying bundling arrangements. For instance, Hilti advocated that its policies were motivated by concerns over quality and safety. It produced a number of technical reports alleging that the quality of the nails manufactured by the complainants was "substandard" and "dangerous."⁷⁴⁴ By contrast, the Commission found that Hilti was attempting, to its own advantage, to impose its own allegedly justified safety requirements.⁷⁴⁵ It stressed that the national rules on safety and product liability guaranteed the quality of nails produced by independent manufacturers. More importantly, Hilti had not submitted evidence of any accidents with nails produced by independent manufacturers. Nor had it ever communicated its safety concerns to users, independent manufacturers or taken steps to alert the national authorities about safety problems with non-Hilti nails.

Recognising the importance of national law on product safety, the CFI rejected Hilti's argument that the practices were justified by the dangerous nature of the independent nails.⁷⁴⁶ In the Court's view, it is not for a dominant company to "take steps on its own initiative to eliminate products which, rightly or

⁷⁴⁰ Case T-83/91, *Tetra Pak v. Commission (Tetra Pak II)* [1994] ECR 461, at 137.

⁷⁴¹ Case C-333/94P, *Tetra Pak International SA v. Commission (Tetra Pak II)* [1996] ECR I-59521, noting that "[t]hat assessment, itself based on commercial usage, rules out the existence of the natural link claimed by Tetra Pak by stating that other manufacturers can produce cartons for use in Tetra Pak's machines" (at 36).

⁷⁴² Case C-333/94P, *Tetra Pak II*, at 37.

⁷⁴³ See Advocate General Colomer in Case C-333/94P, *Tetra Pak II*, at 69 (emphasis added).

⁷⁴⁴ Case IV/30.787, *Eurofix-Bauco v. Hilti*, at 87.

⁷⁴⁵ Case IV/30.787, *Eurofix-Bauco v. Hilti*, at 87-96.

⁷⁴⁶ Case T-30/89, *Hilti*, at 115-119.

wrongly, it regards as dangerous or at least as inferior in quality to its own products.”⁷⁴⁷ In support, it was pointed out that Hilti had never complained with the competent national authorities. The safety issue was not raised before the ECJ.

Neither the Community Courts in *Tetra Pak II* were convinced by Tetra Pak’s safety defence, but, arguably, accepted the possibility of such a claim *in principle*. The CFI stated that it is not for a dominant company to decide that, in order to protect safety, cartons and packaging machines constitute an inseparable integrated system.⁷⁴⁸ Safety concerns should be remedied by national law, and not by rules “adopted unilaterally by manufacturers, which would amount to prohibiting independent manufacturers from conducting the essential part of their business.”⁷⁴⁹ Assuming legitimate safety issues existed, the CFI underlined that Tetra Pak could guarantee packaging reliability and hygiene by merely disclosing technical specifications to machine users. Emphasising the importance of the unhindered production of consumables, the ECJ agreed with the CFI. It noted that Tetra Pak should not “impose [...] measures on its own initiative on the basis of technical considerations or considerations relating to product liability, protection of public health and protection of its reputation.”⁷⁵⁰

A third feature of the EC approach during the 90s is the tendency to give an economic explanation for bundling. In *Sacem Tournier*, for instance, the ECJ considered in a reference from a French court the refusal of the national copyright association Sacem to allow discotheques and clubs access to only one part of the protected repertoire.⁷⁵¹ The owner of Whiskey à GoGo wanted to play only English music in his club. When he approached Sacem, it only gave him access to the foreign repertoire conditional upon his paying royalties corresponding to use of the entire repertoire, even though he would only be playing part of it. In my opinion, Sacem was basically offering only a bundled licence for foreign and national music, notwithstanding the apparent separate demand.⁷⁵²

It is noteworthy that in its intervention before the ECJ, the Commission attempted to justify the bundled licence on the grounds of efficiency considerations.⁷⁵³ It stressed that a fragmented supply of the repertoire in the form of different marketable subdivisions would result in more extensive surveillance by Sacem. This would lead to higher costs, and, presumably, to a higher licencing fee. Highlighting the

⁷⁴⁷ Case T-30/89, *Hilti*, at 118.

⁷⁴⁸ Case IV/31.043, *Tetra Pak II*, at 83.

⁷⁴⁹ Case IV/31.043, *Tetra Pak II*, at 84 and 139.

⁷⁵⁰ Case C-333/94P, *Tetra Pak II*, at 36-37.

⁷⁵¹ Case 395/87, *Ministère Public v. Jean Louis Tournier (Sacem)* [1989] ECR 2521.

⁷⁵² For some authors this case deals with pricing issues, see Faull and Nikpay, *op. cit.*, p. 620.

⁷⁵³ Case 395/87, *Sacem*, at 29.

purpose of copyright societies, the Court accepted the bundle. Those societies "pursue a legitimate aim when they safeguard the rights and interest of their members *vis-à-vis* the users of recorded music."⁷⁵⁴ Therefore, the refusal does not restrict competition under Article 82 EC unless "the concerted practice exceeds the limits of what is necessary for the attainment of that aim."⁷⁵⁵

The latter would indeed be the case if direct access to a subdivision of the repertoire "could fully safeguard the interests of authors, composers and publishers of music without increasing the costs of managing contracts and monitoring the use of protected musical works."⁷⁵⁶ It was up to the national court to assess whether or not these conditions were fulfilled.

A similar approach was noticeable for licensing agreements. The old Regulation 240/1996 on Technology Transfer Agreements expressly whitelisted bundling provided that it is necessary for a technically proper exploitation of the licensed technology or to ensure that the product meets accepted minimum specifications.⁷⁵⁷ Like under the earlier Regulation 2349/1984, this provision did not normally restrict competition but was exempted just in case. Other bundling clauses could be exempted through the Regulation's opposition procedure.⁷⁵⁸ This procedure enabled undertakings whose bundling provision fell outside the terms of the block exemption to notify the agreement and to expect an exemption, unless the Commission opposed it within a specified period of time.

A final feature is that, at least under Article 82 EC, the requirement of market power appears to be taken more seriously. Legally, the power component was easily satisfied. As dominance is a pre-condition for any abuse under Article 82 EC, all defendant companies have been found, not surprisingly, dominant in the tying market.

The earlier cases appear to assume dominance quite easily. By contrast, the Commission made a genuine effort to demonstrate dominance in *Hilti*.⁷⁵⁹ It has assessed Hilti's market share for nail guns at 55% with a similar share for cartridge strips and nails. The dominance was supported by Hilti's patent protection as well as by its well-organised distribution system. Tetra Pak surely held sufficient market

⁷⁵⁴ Case 395/87, *Sacem*, at 31.

⁷⁵⁵ Case 395/87, *Sacem*, at 31.

⁷⁵⁶ Case 395/87, *Sacem*, at 31.

⁷⁵⁷ See Article 2(1)(5) of Regulation 240/1996 on the Application of Article 85(3) of the Treaty to Certain Categories of Technology Transfer Agreements, [1996] L31/2. In Case IV/31.206, *Rich Products/Jus-Rol*, [1988] OJ L69/21, for instance, the Commission cleared the licensee's obligation to obtain a pre-mix only from the licensor. Accepting the parties' arguments that the pre-mix was necessary to a technically satisfactory exploitation of the licensed technology, the Commission did not require the licensor to disclose the secret recipe

⁷⁵⁸ See Article 4(2) of Regulation 240/1996.

⁷⁵⁹ Case IV/30.787, *Eurofix-Bauco v. Hilti*, at 66-73.

power for leveraging. On the aseptic markets, it held a quasi-monopolistic position by flaunting 90-95% of sales. Its closest competitor held the remaining part of the sales. The existence of technological barriers and patents held by Tetra Pak hindered market entry. On the non-aseptic markets, the Commission did not find Tetra Pak to be dominant, though the company had a market share around 50%.

In sum, EC law in the 90s closely resembles a modified *per se* test. Bundling analysis begins with a definition of whether a bundle does indeed exist. There must be two distinguishable products that could be supplied separately, yet consumers are forced to accept both in order to acquire one. If there is bundling, the bundle is illegal under Article 82 EC unless the firm is not dominant or there is a justification of some sort.

If there is bundling, the bundle does not constitute a restriction of competition under Article 81 if one of the rarely accepted economic reasons applies to the opposition procedure. In order for Article 81 EC to be applicable, however, market power does not appear to have been an essential element.

4.4. The effect-based analysis of the new century

With the turn of century, EC law seems to have adopted a test that comes close to a structured rule of reason.⁷⁶⁰ Having said that, there have also been some intransigent moves back to the *per se* ban. One of those instances was the Commission decision in *De Post-La Poste*.⁷⁶¹ La Poste had a legal monopoly in the Belgian market for general post services. Business customers could get a discount for these deliveries if they also subscribed to business-to-business mail service offered by La Poste. Without any economic-factual analysis, the Commission condemned this behaviour under Article 82 EC. It found that La Poste had attempted to extend its monopoly in the letter market into the market for business-to-business mail services that was subject to competition La Poste wished to thwart.⁷⁶²

⁷⁶⁰ This observation is based on a string of formal decisions and regulations. Informally, the Commission accepted in Case COMP/39.116, *Coca Cola*, an important undertaking by Coca-Cola to change its commercial behaviour with regard to the take-home and on-premise channel and sponsorship. Among other things, Coca-Cola was forced to drop: (1) tying Cola or Orange soft drinks with one or more additional Coca-Cola beverages (p. 5); (2) range commitments or combined payments of rebates (pp. 5-6); and, (3) shelf space commitments not separating between shelves for Cola or Orange soft drinks and other Coca-Cola beverages (p. 6).

See www.europa.eu.int/comm/competition/antitrust/cases/decisions/39116/commitments.pdf, 22 June 2004.

⁷⁶¹ Case COMP/37.859, *De Post-La Poste* [2002] OJ L 61/32.

⁷⁶² Case COMP/37.859, *De Post-La Poste*, at 74.

As for Article 81 EC, bundling has been subjected to an effect-based analysis, though with a flawed power requirement. This is discernable in Regulation 2790/1999 regarding verticals restraints.⁷⁶³ For one thing, bundling is not blacklisted under this Regulation. Thus, any bundling restriction in a vertical agreement will be automatically exempted if the supplier's market share is less than 30%. This makes perfect sense, as the supplier with that market share or less would surely lack the power to impose a leveraging practice. For market shares above the threshold, the Guidelines on Vertical Restraints concentrate on the foreclosure effects on the market for the tied product.⁷⁶⁴ Foreclosure should be assessed based on the power of competitors and buyers and entry barriers. This implies, in my view, an effect-based approach instead of a *per se* approach.

Conversely, where appreciable anti-competitive effects have been established, the question of a possible exemption under Article 81(3) EC arises as long as the company is *not* dominant.⁷⁶⁵ Remarkably, this suggests that, in the eyes of the Commission, leveraging would be possible even if the company is not dominant. This approach is not to be applauded. While it takes the market power requirement more seriously, it becomes questionable whether a company with a market share less than the dominance threshold may be in the position to leverage its market power to a related market. Even in the case of dominance, it depends on the actual effects of the bundle on competition in the tied market.

A similar deficient approach may be found under Regulation 772/2004.⁷⁶⁶ Bundling arrangements are automatically exempted under Article 2, so long as they do not constitute "the primary object of such agreements, but are directly related to the application of the licensed technology"⁷⁶⁷ and the parties to the agreement do not fall outside the market share thresholds.⁷⁶⁸ In the case of competitors, the Regulation is not applicable if the parties' market share exceeds 20%. For non-competing parties, the market share is set at 30%. Above the market share thresholds, it is necessary to "balance the anti-competitive and pro-competitive effects of tying."⁷⁶⁹ As for the negative effects, the Commission looks at foreclosure of competing suppliers in the tied market, whereby raising entry barriers is an important aspect of the analysis. The Commission also acknowledges that, in order to generate these effects, a

⁷⁶³ See Regulation 2790/1999 on the Application of Article 81(3) of the Treaty to Categories of Vertical Agreements and Concerted Practices, [1999] OJ L 336/21.

⁷⁶⁴ See Commission Notice, Guidelines on Vertical Restraints, [2000] OJ C 291/01, at 217, 219-222.

⁷⁶⁵ See Commission Notice, Guidelines on Vertical Restraints, at 222.

⁷⁶⁶ See Regulation 772/2004 on the Application of Article 81(3) of the Treaty to Categories of Technology Transfer Agreements, [2004] OJ L 123/11.

⁷⁶⁷ See Recital 9 of Regulation 772/2004.

⁷⁶⁸ See Article 3 of Regulation 772/2004.

⁷⁶⁹ See Commission Notice, Guidelines on the Application of Article 81 of the EC Treaty to Technology Transfer Agreements, [2004] OJ C101/2, at 192.

"significant degree of market power" in the bundling market is required.⁷⁷⁰ Likewise, it duly concedes that the bundle must cover a certain proportion of the market for the tied market in order for appreciable foreclosure effects to occur.

The Commission's structure is so far so good, but arguably remains flawed. On the one hand, the Commission does not explain what degree of market power it considers necessary for anti-competitive leveraging. Like in the case of vertical restraints, the low thresholds suggest that market power not constituting dominance would be sufficient to lead to anti-competitive foreclosure in the market for the bundled good.

On the other hand, the Commission expressly recognised for the first time that bundling can also give rise to efficiency gains.⁷⁷¹ As with earlier regulations, bundling is allowed if it is necessary for a technically satisfactory exploitation of the licensed technology. Bundling can be accepted if it is necessary to ensure that production under the licence conforms to quality standards. Bundling may also be necessary to protect a licensor's trademark or brand name. A final efficiency reason is that it could allow the licensee to exploit the licensed technology significantly and more efficiently.⁷⁷² In these instances, bundling is normally not restrictive of competition, or at least covered by Article 81(3) EC even above the market share thresholds.

The recent decisions in *Van den Bergh* and *Microsoft* also reveal a tendency for effect-based analysis under Article 82 EC.⁷⁷³ In the former case, the Commission found that Van den Bergh had abusively tied ice cream retailers in Ireland to it through freezer exclusivity.⁷⁷⁴ Van den Bergh supplied ice cream sellers with free freezer cabinets on the condition that only Van den Bergh ice would be sold from those cabinets. Although commonly categorised as a case concerning exclusivity, one could consider the facts of *Van den Bergh* as constituting a *de facto* bundling arrangement.⁷⁷⁵ Essentially, the case involved the bundling of the *wholesale* market to the *retail* market for ice creams.

⁷⁷⁰ See Commission Notice, Guidelines on Technology Transfer Agreements, at 193, where it also noted that "[i]n the absence of market power in the tying product the licensor cannot use his technology for the anti-competitive purpose of foreclosing suppliers of the tied product."

⁷⁷¹ See Commission Notice, Guidelines on Technology Transfer Agreements, at 194.

⁷⁷² See Commission Notice, Guidelines on Technology Transfer Agreements, at 195.

⁷⁷³ The decision in *Van den Bergh Foods* also involved an infringement of Article 81 EC. For our purpose, the analysis under Article 82 EC is of particular interest.

⁷⁷⁴ Case IV/34.395, *Van den Bergh Foods Limited* [1998] OJ L 246/1.

⁷⁷⁵ At the least the facts of case resemble a bundling setting and allow for some analogies. For the common position, see Jones and Sufrin, *op. cit.*, pp. 462-463; Faull and Nikpay, *op. cit.*, p. 163; and, Robertson and Williams, "The Law and Economics of Freezer Exclusivity", ECLR 7 (1995), pp. 7-8. Another instance of *de facto* bundling is Case Comp/34.493, DSD [2001] OJ L 166/1 regarding tying the members of the DSD waste collection system (at 112-115).

Rather than applying the modified *per se* test, the Commission made a profound market analysis and made a detailed assessment of the foreclosure effects of Van den Bergh's behaviour in the retail market. Despite the fact that the contracts left retailers free to place another freezer in their shop or to replace the cabinet supplied with any other, the Commission found it was unlikely that retailers would actually do this. Because of factual constraints such as the lack of space and extra costs, they were tied to Van den Bergh.

The CFI upheld the Commission's decision, even though Van den Bergh's condition was standard business practice.⁷⁷⁶ In 1996, only 17% of outlets in Ireland had freezer cabinets belonging to the retailer and, consequently, were free to stock ice cream from any supplier. Thus, 83% of retail shops had freezers supplied by a manufacturer subject to conditions of exclusivity. More than 60% of those freezers supplied by exclusivity came from Van den Bergh. Due to its overwhelming position on the market for the supply of ice creams, the exclusivity clause was held to tie, even at the retailer's request, 40%.

The CFI held that this has the effect of preventing the retailers concerned from selling other brands of ice cream or of reducing the opportunity for them to do so.⁷⁷⁷ As there was demand for ice cream supplied by others, Van den Bergh's contracts prevented competing manufacturers from gaining access to the retail market. In that respect, it should be noted that Van den Bergh had an extremely large market share of 89% in the ice cream wholesale market when the Commission decision was adopted. Its rivals, Mars and Nestlé, had well-known brands coupled with experience and financial capacity to enter new markets.

However, they had only very small market shares even though they are major players in the neighbouring markets for confectionery and chocolate and sell those products in the same outlets as those concerned in *Van Den Bergh*. In response to Van den Bergh's plea that the decision disproportionately infringed the property rights in its freezer cabinets, the Court found that there was no undue limitation on the exercise of these rights. The contested decision does not deprive Van den Bergh of its property rights or prevent it from exploiting those assets by renting them out on commercial terms.⁷⁷⁸ All it does, observed the CFI, is to provide that if Van den Bergh decides to exploit the freezers

⁷⁷⁶ Case T-65/98, *Van den Bergh Foods Ltd v. Commission*.

⁷⁷⁷ Case T-65/98, *Van den Bergh Foods Ltd v. Commission*, at 160.

⁷⁷⁸ Case T-65/98, *Van den Bergh Foods Ltd v. Commission*, at 171.

by making them available to retailers "without charge," it may not do so based on an exclusivity clause so long as it holds a dominant position on the relevant market.⁷⁷⁹ Thus, Van den Berg had abused its dominant position in the ice cream wholesale market by bundling it to the ice cream retail market

The Commission's decision in *Microsoft* is undoubtedly the most prominent case on bundling.⁷⁸⁰ With a great deal of drama, the decision was lauded as 'the case of the century.' Following a complaint lodged by Sun Microsystems, the in March 2004 the Commission found that Microsoft had violated Article 82(d) EC by including WMP in its Windows operating system.⁷⁸¹ Before analysing the decision in greater detail, some general observations can be made.

First, the Commission expressly articulated a test for assessing technical bundling and contractual tying for the first time. For illegal bundling and tying, the following four-part test applies: (1) the tying and tied goods must be separate products; (2) the defendant must be dominant in the tying product market; (3) the defendant must not give customers the choice of obtaining the tying product without the tied product; (4) and, the tying arrangements must foreclose competition.⁷⁸² The Commission devoted most of its analysis to the first and fourth element of its test. The other elements were quite easily satisfied.

Second, the foreclosure requirement has not explicitly been part of bundling analysis under EC law. As observed, the Commission has gradually focused more on this important aspect of any competition analysis. Perhaps, the Commission felt obliged to emphasise this point because the case was not a "classical tying case," as consumers are free to use third-party media players with Windows.⁷⁸³

Third, although not stated by the Commission as a part of its test, it discussed, only to then reject, the possibility that otherwise unlawful bundling could be saved by an objective justification.⁷⁸⁴ Fourth, although some aspects of the analysis employed by the Commission were reminiscent of *Jefferson Parish*, commentators accurately stress that its analysis resembles, to a certain extent, the rule of

⁷⁷⁹ Case T-65/98, *Van den Bergh Foods Ltd v. Commission*, at 172.

⁷⁸⁰ The second limb of the Commission decision regarding compulsory licensing is not discussed in this thesis. For details, see Anderman, "Does the *Microsoft* Case Offer a New Paradigm for the 'Exceptional Circumstances' test and Compulsory Copyright Licenses under EC Competition Law?", *CompLRev* 7 (2004).

⁷⁸¹ For interesting reviews, see Ayres and Nalebuff, "Going Soft on Microsoft? The EU's Antitrust Case and Remedy", *The Economists' Voice* 1 (2005); Pardolesi and Renda, "The European Commission's Case Against Microsoft: Kill Bill?", *W.Comp.* 513 (2004); Körber, "Machtmißbrauch durch Multimedia - Der Fall Microsoft zwischen Produktinnovation und Behinderungsmißbrauch", *RIW* 568 (2004); Van Daalen and Geursen, "De Microsoft-Beschikking: Dwanglicenties en Opsplitsing van Geïntegreerde Producten", *M&M* 246 (2004); Langer, "De Microsoft-Zaak en de Leverage-theorie", *AM* 169 (2004).

⁷⁸² Case COMP/37.792, *Microsoft*, at 794.

⁷⁸³ Case COMP/37.792, *Microsoft*, at 841.

⁷⁸⁴ Case COMP/37.792, *Microsoft*, at 961.

reason framework articulated in *Microsoft III*.⁷⁸⁵ This is due to the prime focus of the analysis on the effects of the bundle in the tied market and the clear acceptance of the possibility of justifying it. The Commission itself also has this view. Like the Court of Appeals, it purported to follow a "rule of reason" approach in order to establish whether anti-competitive effects of tying WMP outweigh any possible pro-competitive benefits."⁷⁸⁶

Given its market share of more than 90%, Microsoft was considered dominant in the market for the Windows operating systems.⁷⁸⁷ As the case concerned technical bundling, consumers were clearly forced to accept the Windows-WMP bundle.⁷⁸⁸ On the first element, the Commission did not focus on the technical integration of the software functions. It claimed that the "distinctiveness of products for the purpose of an analysis under Article 82 [...] has to be assessed with a view to consumer demand."⁷⁸⁹ The Commission contended that there is "separate consumer demand for media players, distinguishable from the demand for client PC operating systems," as evidenced by the fact that media players are provided separately in the market by independent suppliers.⁷⁹⁰ It further stressed the fact that a "non-insignificant consumer demand" for separate media players existed "some four years after Microsoft started tying its streaming media player with Windows."⁷⁹¹ The Commission's analysis was complemented with evidence of Microsoft's internal views on the Windows-WMP bundle and the functional differences between Windows and WMP.⁷⁹²

For the fourth element of the claim, the legal-political stakes of the game are quite high. The media player market is not just about music. There is a battle about which operating system will appear on the next generation of mobile phones and televisions. WMP is already running on more than 90% of the computers working with Windows. As a result, most media and audio files are encoded in Windows media format and APIs. The troublesome issue is that when digital media is delivered to platforms other than computers, there will be no effective competition in the market for media players. The simple reason is that all content will be encoded in Microsoft's proprietary WMP format. In its decision, the

⁷⁸⁵ See Ehlermann and Ratliff, "Mario Monti's Legacy for Competition Policy in Article 82", *Comp. Pol'y Int'l.* 79 (2005), p. 85; and, Dolmans and Graf, "Analysis of Tying Under Article 82 EC: The European Commission's Microsoft Decision in Perspective", *W.Comp.* 225 (2004), p. 226.

⁷⁸⁶ See IP/04/70, 24 March 2004.

⁷⁸⁷ Case COMP/37.792, *Microsoft*, at 799.

⁷⁸⁸ Case COMP/37.792, *Microsoft*, at 834.

⁷⁸⁹ Case COMP/37.792, *Microsoft*, at 803. Compare *United States v. Microsoft Corp.*, 87 F. Supp. 2d, using a "character of the demand" test for determining whether two products are in reality a single product (at 47-49).

⁷⁹⁰ Case COMP/37.792, *Microsoft*, at 804, 806, 808.

⁷⁹¹ Case COMP/37.792, *Microsoft*, at 808.

⁷⁹² Case COMP/37.792, *Microsoft*, at 805, 806, 810, 811.

Commission concluded that the "tying in this specific case has the *potential* to foreclose competition."⁷⁹³ In other words, the Commission did not retain the competition had actually been foreclosed. Rather, it stated that "tying WMP with the dominant Windows makes WMP the platform of choice for complementary content and applications which in turn risks foreclosing competition in the market for media players."⁷⁹⁴

The Commission applied an indirect network effects theory. It claimed that the inclusion of WMP in the ubiquitous Windows system would result in content providers and software developers to rely upon Windows formats. That would again have the effect of increasing usage of WMP.⁷⁹⁵ As a consequence, it was argued that the use of media player software would over time "tip" to WMP.⁷⁹⁶ Furthermore, the Commission rejected the justifications put forward by Microsoft for the bundle. Although it recognised that an objective justification could serve to overcome bundling liability, the Commission advanced that such justification would not suffice unless the challenged bundling was "indispensable" to attaining the aforementioned efficiencies.⁷⁹⁷ In this regard, the Commission said that efficiencies that relate from Microsoft's deliberate design choices do not count.⁷⁹⁸ Microsoft had argued that including media functionality in Windows improved various other aspects of the operating system. The Commission accorded no weight to such efficiencies, stating that "[t]he existence of such interdependencies would be the result of deliberate choice by Microsoft."⁷⁹⁹

The Commission fined Microsoft more than 497 million euros. More seriously for Microsoft, the decision also ordered it to sell a version of Windows without WMP built in.⁸⁰⁰ It should be recalled that Microsoft can continue to sell Windows bundled with WMP. For obvious reasons, Microsoft is not allowed to offer any technological, commercial or contractual term or inducement so as to make the bundled version more attractive than the unbundled version. Interestingly, the Commission states that if its remedy proves to be ineffective, it "reserves the right to review the present decision and impose an alternative remedy."⁸⁰¹

⁷⁹³ Case COMP/37.792, *Microsoft*, at 842 (emphasis added).

⁷⁹⁴ Case COMP/37.792, *Microsoft*, at 842.

⁷⁹⁵ Case COMP/37.792, *Microsoft*, at 879-896.

⁷⁹⁶ Case COMP/37.792, *Microsoft*, at 968, 1016, 1071.

⁷⁹⁷ Case COMP/37.792, *Microsoft*, at 961.

⁷⁹⁸ Case COMP/37.792, *Microsoft*, at 963, 967.

⁷⁹⁹ Case COMP/37.792, *Microsoft*, at 1027.

⁸⁰⁰ Case COMP/37.792, *Microsoft*, at 1011-1042.

⁸⁰¹ Case COMP/37.792, *Microsoft*, at 1012.

Compared to US proceedings, the Commission imposed quite heavy obligations on the Redmond-based giant. In fact, I have written earlier that the US case was a victory for Microsoft because the American authorities dropped the bundling claim and the settlement reached was quite weak.⁸⁰²

Contrary to what some commentators suggest, requiring a product change is not new under EC law.⁸⁰³ Indeed, the decision does not refer to applicable jurisprudence, but such a remedy, although informally, was already applied in the proceedings against IBM.⁸⁰⁴ The Commission was concerned about IBM's business practices with regard to its System/370 mainframe computer.⁸⁰⁵ It was alleged that IBM held a dominant position in the market for the supply of the central processing unit (CPU) and the operating system for the System/370. Due to this strong position, the Commission feared that IBM would control the market for all products compatible with System/370. Therefore, it objected to IBM's integration of memory devices with the CPU and the bundling with basic software applications. A settlement was reached by 1984 when the Commission secured that IBM would supply its computers either without any memory capacity or with only enough memory capacity as testing strictly required.⁸⁰⁶

Not surprisingly, Microsoft appealed the decision to the CFI. It also asked the CFI President Vesterdorf to suspend the remedy until its appeal is resolved. For the suspension of the unbundling remedy, Microsoft claimed that it would suffer serious and irreparable harm from immediate implementation in four ways.⁸⁰⁷

First, Microsoft argued that its reputation would be irreparably harmed by the mere existence of a Windows version without the WMP functionality. That argument is far-fetched and was rightly dismissed by the President. Microsoft's reputation would not be harmed because OEMs will not sell Windows with a non-functional media player.⁸⁰⁸

Second, as a consequence of unbundling, it would suffer development costs. The President stressed that these costs are financial, and therefore do not constitute irreparable damages.⁸⁰⁹ In the event that the decision should be annulled, Microsoft could even resume selling Windows with WMP functionality

⁸⁰² See Langer, "De Microsoft-Zaak: de Schikking tussen het Amerikaanse Ministerie van Justitie en Microsoft", AM 28 (2003), p. 31.

⁸⁰³ For instance, see Art and McCurdy, "The European Commission's Media Player Remedy in its Microsoft Decision: Compulsory Code Removal Despite the Absence of Tying and Foreclosure", ECLR 694 (2004), p. 698.

⁸⁰⁴ Case COMP/37.792, *Microsoft*, at 1011.

⁸⁰⁵ For more details, see Goyder, *op. cit.*, pp. 301-304.

⁸⁰⁶ See IP/84/291, 2 August 1984.

⁸⁰⁷ For details on the appeal, see Langer, "Case T-201/04 R, *Microsoft v. Commission*", AM 7 (2005).

⁸⁰⁸ Case T-201/04 R, *Microsoft v. Commission*, decision of 22 December 2004, not yet reported, at 442-475.

⁸⁰⁹ Case T-201/04 R, *Microsoft v. Commission*, at 413.

and there would be no "obstacles capable of preventing Microsoft from regaining the position which it held on the market before the implementation of the remedy."⁸¹⁰

Third, Microsoft claimed that allowing different versions of Windows would require web sites to make their media streams compatible with multiple media players rather than the *de facto* WMP standard. The President made it clear that costs to third parties are no legal justification for staying the remedy.⁸¹¹ Finally, Microsoft claimed that there would be little commercial demand for Windows without WMP. As the President duly noticed, Microsoft's argument was inconsistent with its argument that imposing the remedy would lead to serious and irreparable harm.⁸¹² An ineffective remedy is unlikely to cause such harm. Thus, there was no urgency to suspend the remedy and Microsoft must therefore sell a version of Windows without its media player. This means that OEMs who sell machines with this version will have the option of choosing to match it with alternative media players, such as Real Player.

It is intriguing that President Vesterdorf engaged in a fairly detailed assessment of whether Microsoft had demonstrated a *prima facie* case against the contested decision. The President made some comments that appear to be in the direction of Microsoft, whereas others are more encouraging for the Commission. He noticed that Microsoft's arguments raised complex questions that cannot be regarded as *prima facie* unfounded in a proceeding requesting suspension. There was doubt over the Commission's indirect network effects theory and the tipping effect.⁸¹³ The Commission should have given greater weight to the potential positive effects of Windows as a *de facto* standard.⁸¹⁴ It wrongly concluded that the Windows operating system and media players constitute distinct products.⁸¹⁵ Thus, the President appears to have accepted by and large the issues pleaded by Microsoft.

However, the President also recognised that in order to find abuse, it is sufficient for the defendant's behaviour to tend "to restrict competition or, in other words, that the conduct is capable of having or likely to have such an effect."⁸¹⁶ This would mean that proof actual anti-competitive effect is not required. To be sure, it is tempting to speculate over the outcome of the main case from the statements made by the President. Microsoft indeed appears to interpret the order as supporting its main action.⁸¹⁷

⁸¹⁰ Case T-201/04 R, *Microsoft v. Commission*, at 430.

⁸¹¹ Case T-201/04 R, *Microsoft v. Commission*, at 415-416.

⁸¹² Case T-201/04 R, *Microsoft v. Commission*, at 426-441.

⁸¹³ Case T-201/04 R, *Microsoft v. Commission*, at 395-400.

⁸¹⁴ Case T-201/04 R, *Microsoft v. Commission*, at 401.

⁸¹⁵ Case T-201/04 R, *Microsoft v. Commission*, at 403.

⁸¹⁶ Case T-201/04 R, *Microsoft v. Commission*, at 400.

⁸¹⁷ See www.microsoft.com/presspass/press/2004/dec04/12-22cfrulingpr.mspx, 22 December 2004.

However, some words of caution are in order. It should be stressed that the threshold for finding of a *prima facie* case is fairly low. Where the President agreed with Microsoft's pleas, he used wordings such as "Microsoft's [...] arguments raise complex issues which it is for the Court of First Instance to resolve in the main action and that those arguments cannot be regarded in the interim measures proceedings as *prima facie* unfounded"⁸¹⁸ and "[I]t is for the Court of First Instance to rule, in the main action, on those factual questions and on the consequences, if any, to be drawn from them [...]."⁸¹⁹ For the main case, the standard for annulment is higher. Undoubtedly, the President's statement will be taken into account by the chamber deciding Microsoft's appeal, although they are not binding on the chamber. A final point is that the President himself is not a member of the chamber deciding the case.⁸²⁰

4.5. Interim conclusions on EC law

Bundling under EC law is largely controlled in the context of Article 82 EC, although it may also fall within the scope of Article 81 EC. From a comparative perspective, under US law, bundling has primarily been addressed under § 1 Sherman Act. Paradoxically, despite the fact that the US and EU use different policy instruments to control bundling, there still exists a close proximity between the two analytical frameworks. This is partly because the requirement of 'sufficient market power' under US law matches more closely the standard of dominance under EC law.

The Commission's practice in 70s and 80s with regards to bundling can be called harsh. Similar to US law, the earliest cases typically involved the efforts of an intellectual property holder to tie its license for the protected product to a second, mostly competitively supplied product. Following the observation that the Commission easily held any restriction of licensee's freedom to constitute a restriction of competition, it condemned bundling clauses without making a proper analysis of market conditions. A form-based rule was adopted on assumptions about the harmfulness of leveraging, particularly with respect to exclusion. The Commission's practice also suggests that the presence of market power was not a necessary requirement for successfully implementing bundling. The harsh policy was accepted by the Community Courts. Notably, this approach was adopted when the Community's competition policy was in its infancy, and it was considered that reasonably clear rules were needed in order to address

⁸¹⁸ Case T-201/04 R, *Microsoft v. Commission*, at 394.

⁸¹⁹ Case T-201/04 R, *Microsoft v. Commission*, at 402.

⁸²⁰ Although there are press reports that President Vesterdorf has proposed to move the case from a five-judge panel headed by Judge Legal to the Court's Grand Chamber, headed by himself. See www.reuters.com/newsArticle, 20 June 2005.

conduct that impeded competition. At the time, economic analysis was less developed and could not provide a clear view of the effects that practices were having on competition.

The field of economics has since then developed. This section has also revealed that Articles 81 and 82 EC have sought to follow this approach. EC law is paying indeed more "heed to economic evidence."⁸²¹ Although the legal approach was still form-based and *per se*, there were significant modifications in the 90s. The market power requirement was taken more seriously and economics played a greater role in explaining and justifying bundling arrangements. This resulted in a two-faced approach that I described as a modified *per se* test. The recent decisions, with *Microsoft* as a leading example, tend to an effect-based approach. The Commission appears to have somewhat recast the analytical framework in comparison with previous cases. It can be said that the new approach comes close to an unstructured rule of reason test. Under this framework, leveraging is no longer assessed in a vacuum. Antitrust analysis focuses heavily on foreclosure in the tied market.

However, for Article 81 EC to apply, sufficient market power does not always appear to be essential. Strictly speaking, Article 81 EC does not require a finding of dominance, but such an approach does not make economic sense. In my view, it would be better to completely drop the Article 81-limb to regulate bundling.

5. The separate-product issue

The concept of bundling presupposes that different products are being bundled together. As Sufrin and Jones write, "[i]f what is supplied consists of one product there cannot be a tie as one cannot tie something tied together."⁸²²

As seen in Chapter 2, the relevance of this condition for leveraging was just recently conclusively confirmed in *IMS Health*.⁸²³ In general, the examination of EC law reveals the same endemic problem that we observed under US law: what test should be applied so as to determine whether products are components of a single product or are in distinct markets? As Advocate General Jacobs justly noted in

⁸²¹ See Korah, "Tetra Pak II – Lack of Reasoning in Court's Judgment", ECLR 98 (1997), p. 103.

⁸²² See Sufrin and Jones, *op. cit.*, p. 454.

⁸²³ Case C-418/01 *IMS Health v. NDC Health*, stating that "it is determinative that two different stages of production may be identified and that they are interconnected, inasmuch as the upstream product is indispensable for the supply of the downstream product" (at 45).

Hilti, this is a "complex operation involving both findings of fact and evaluation of those facts in the light of economic principles and legal criteria."⁸²⁴

In European academic and legal circles, a range of tests to answer this question have been discussed. These tests fall into six major categories: (1) the simple-product test; (2) the interchangeability test; (3) the inherent-link test; (4) the consumer-demand test; (5) the historical-practices test; (6) and, the customary-practices test. Because these tests are in and of themselves flawed, I suggest applying a multi-factor test.

5.1. The simple-product test

Like in the US, the Courts and the Commission have often separated products based on intuition. With little or no analysis, they decided that separate products existed. For instance, the early cases on licensing agreements involved products that were intuitively separate: manufacturing process for meat sausages and casings used in that process⁸²⁵, patented technology and general machinery equipment⁸²⁶, and sail boards and rigs.⁸²⁷

The same approach was discernable in early leveraging but non-bundling cases. For instance, in *Commercial Solvents*, concerning a refusal to supply, the ECJ and Commission did not elaborate on why the raw material market was distinguished from the ancillary market for the derivative product.⁸²⁸ Likewise, later cases intuitively considered products as distinct: telemarketing services and television advertisement services⁸²⁹, reservation system and ground handling⁸³⁰, computer systems and maintenance services for those systems⁸³¹, and train engines and staff handling these machines.⁸³²

Like in the US, the separate-product issue was sometimes decided by simple logic. For instance, in *Hugin*, the question arose whether the market for spare parts of a product might constitute a separate market.⁸³³ This case concerned a refusal to supply by Hugin, a Swedish firm that produced and sold cash registers and their spare parts. It decided to no longer supply spare parts to Liptons, a small firm

⁸²⁴ See Advocate General Jacobs in C-53/92 P, *Hilti*, at 8.

⁸²⁵ Case IV/29.290, *Vaessen/Moris*.

⁸²⁶ Case IV/4204, *Velcro/Aplix*.

⁸²⁷ Case C-193/83, *Windsurfing v. Commission*.

⁸²⁸ Cases 6 & 7/73, *Istituto Chemioterapico Italiano SpA v. Commission*, at 25.

⁸²⁹ Case 311/84, *Télémarketing*.

⁸³⁰ Case IV/32.318, *London European-Sabena*.

⁸³¹ See IP/97/868, 8 October 1997.

⁸³² See IP/01/1415, 12 October 2001.

⁸³³ Case 22/78, *Hugin Kassaregister AB and Hugin Cash Registers Ltd v. Commission* [1979] ECR 1869.

specialised in servicing and repairing Hugin machines. The ECJ held that the relevant market in this case was the market for spare parts needed by general repairers and servicers of the Hugin machines. Focusing on independent suppliers like Liptons, the Court stressed that these undertakings "require spare parts for their various activities" and that they need "such parts in order to provide services for cash register users" in the form of servicing.⁸³⁴ The troublesome issue, in my view, is that the Court did not discuss the existence of possible substitutes on the demand side for independent undertakings. This would have suggested that the general market for spare parts required by Hugin owners as the relevant market.⁸³⁵

Some national courts and authorities have also endorsed the simple-product test. To be fair, their results make sense. In France, the Competition Council has ordered the Mannesman Company to remove a bundling clause from its general conditions of sale.⁸³⁶ This clause enabled buyers of a chronotachygraph to profit from a contractual guarantee only if they exclusively used the recording tapes offered by Mannesman. Without giving an explanation, the Council made a distinction between a chronotachygraph and recording tapes used with it. More recently, in Germany, the Federal High Court distinguished the market for voice telephony services from the market for electricity supply in two cases.⁸³⁷ The Court did so without making an elaborate analysis. In both cases, Deutsche Telekom sued publicly owned local electricity supply enterprises and their telecommunications subsidiaries for alleged abusive bundling. Only the decision that the geographical market was confined to the local supplier's network was discussed at length by the Federal High Court.

In my view, any simple-product test should be dismissed as *general* instrument to answer the separate-product question. It is irrelevant if some intuitive conclusions match the results of more directed analysis. The simple-product test is inherently flawed. Like the US test, the simple-product test may dispose of antitrust cases because widely-held customs are rarely challenged. It may also obscure the factual premises of the legal assessment. As seen in *Hugin*, more sophisticated analysis is required to answer the separate-product question.

⁸³⁴ Case 22/78, *Hugin*, at 7-8. The proposition that one brand of spare parts can constitute a separate product market has also been applied in Case 238/87, *AB Volvo v. Erik Veng* [1988] ECR 6211 and Case 53/87, *CICRA v. Renault* [1988] ECR 6039.

⁸³⁵ See Baden Fuller, "Article 86: Economic Analysis of the Existence of a Dominant Position", *ELRev* 423 (1979), pp. 426-427.

⁸³⁶ Decision 90-D-34, *Mannesman Company*, 20 October 1990, Bulletin DGCC, 31 October 1990, p. 396.

⁸³⁷ Judgment of November 4, 2003, cases KZR 16/02 and KZR 38/02, p. 11.

5.2. The interchangeability test

In deciding the separate-product issue, the Commission has sometimes advanced partially or fully an interchangeability test.⁸³⁸ Under this test, the components of the bundle are considered to be separate and distinct when they have different supply and demand characteristics. This is regardless of whether or not the bundled items are interrelated.⁸³⁹

In *Hilti*, the Commission rejected Hilti's view that nail guns, cartridge strips and nails should be seen as forming one integrated powder actuated fastening system ("PAFS"). The commission focused on the lack of functional interchangeability between the various components. As for the supply side, the Commission stressed that, for instance, nails and cartridge strips are produced with "totally different technologies and often by different firms" than nail guns.⁸⁴⁰ The very fact that there existed independent nail and cartridge strip makers not producing nail guns was another indication that supply conditions were different.⁸⁴¹ The Commission concluded that "nail guns, cartridge strips and nails, even if inter-related, have different sets of supply and demand conditions and constitute separate product markets."⁸⁴²

In *Tetra Pak II*, the Commission likewise found that packaging machines and the cartons used with those machines are separate products because the individual items lacked functional interchangeability.⁸⁴³ Although primarily relying on a consumer-demand test, the Commission also considered in *Microsoft* the differences in "functionality" and "industry structures," coming to the conclusion that operating systems and media players are in distinct markets.⁸⁴⁴

Some national courts and antitrust authorities have also adhered to the interchangeability test. In October 2004, the Dublin High Court gave its first Irish judgment since Regulation 1/2003 came into force. In *ILCU*, the High Court found that ILCU was dominant in the market for the provision of savings protection.⁸⁴⁵ By bundling access to its savings protection scheme with the provision of its representation services, the High Court held that ILCU was abusing its dominant position by foreclosing

⁸³⁸ See Van Daalen en Geursen, *op. cit.*, pp 249-250.

⁸³⁹ See Farr, *op. cit.*, p. 175.

⁸⁴⁰ Case IV/30.787, *Eurofix-Bauco v. Hilti*, at 55.

⁸⁴¹ Case IV/30.787, *Eurofix-Bauco v. Hilti*, at 56.

⁸⁴² Case IV/30.787, *Eurofix-Bauco v. Hilti*, at 57 (emphasis added).

⁸⁴³ Case IV/31.043, *Tetra Pak II*, referring to Case IV/31.043, *Tetra Pak I* [1988] OJ L 27/46 (at 93). In *Tetra Pak I*, the Commission extensively discussed the supply and demand differences between filling machines and cartons (at 29-39).

⁸⁴⁴ Case COMP/37.792, *Microsoft*, at 811-813.

⁸⁴⁵ High Court Judgment [2003 No 8608P], *The Competition Authority v. The Irish League of Credit Unions ("ILCU")*, 22 October 2004, pp. 132-137.

the related market for credit union representation. The parties engaged in a lengthy debate on how the SSNIP test could be used to establish whether credit union representation services and savings protection services were a single offering or a bundle. Because the parties lacked quantitative data, the Irish Court ultimately adopted an intuitive approach and subsequently concluded that the services ILCU offered its members were not interchangeable.⁸⁴⁶

Another recent example comes from the UK telecom authority Ofcom. In *BT Analyst*, Ofcom examined whether BT Analyst, a software programme analysing telephone billing data, was part of BT's retail telephony service.⁸⁴⁷ The issue rose between Designbyte and BT. Designbyte offers Magictelcom, an electronic telephone billing analysis service with integrated database management. Designbyte's programme competed with BT Analysts. Because BT offered its customers BT Analyst free of charge as part of its retail telephony service, it allegedly abused its dominant position by bundling a service that could be supplied separately and competitively. Relying on product interchangeability, Ofcom found it artificial to distinguish a basic bill for a service from the service itself.⁸⁴⁸ "[T]he functionality of BT Analyst is simply," the UK authority wrote in its decision, "one of the benefits of providing data in electronic form rather than functionality that clearly distinguishes BT Analyst from basic bills provided as part of the retail telephone package."⁸⁴⁹ It dismissed the bundling claim.

The major advantages of the interchangeability test are its easy application and the clear guidance it gives to antitrust enforcers and business advisers. As in *BT Analyst*, the test might even result in the same conclusions, like more directed analysis. However, the results of the test can be quite harsh in some respects. Critics concede that the test is "highly tenuous."⁸⁵⁰

First, the test conflicts with the conventional notion whereby the possible attributes of the bundle itself should also be taken into consideration. Under the test purported by the Commission, complementary products could never constitute an integrated product. By definition, the conditions of demand and supply are different for complementary goods.⁸⁵¹

⁸⁴⁶ ILCU, preferring to "adopt the 'intuitive' or 'innate characteristics' test to find that there are two markets at work in the instant case, being respectively a market for credit union representation services [...], and the savings protection market" (pp. 130-131).

⁸⁴⁷ Ofcom, *Pricing of BT Analyst*, 26 October 2004.

⁸⁴⁸ Ofcom, *Pricing of BT Analyst*, at 3.15-3.22.

⁸⁴⁹ Ofcom, *Pricing of BT Analyst*, at 3.21.

⁸⁵⁰ See Price, "Abuse of a Dominant Position – the Tale of Nails, Milk cartons and TV Guides", ECLR 80 (1990), p. 82.

⁸⁵¹ See Korah (1993), noting that "consumables are to be treated *per se* as in a different market from the equipment with which they are used as they are not substitutes on the demand or supply side" (p. 151).

Second, on an analytical level, the fatal shortcoming is that the test assesses the incorrect relationship. In *Hilti*, the defendant's argument was that the products were integrated, not they were interchangeable.⁸⁵² Antitrust analysis should not focus on the functional interchangeability between the various items of the bundle. It must assess whether, for instance, PAFS are functionally interchangeable with nail guns supplied without cartridge strips and nails. The SSNIP test also could not be used for this purpose. This test is designed to study the *closeness of competition between substitutes*.⁸⁵³ It says nothing about how to determine whether or not two components form a single product or a bundle of products.⁸⁵⁴

Thus, the interchangeability test should, in my view, be dismissed.

5.3. The consumer-demand test

Like US law, EC law has sometimes applied a consumer-demand test. The test attaches unique significance to a one-single factor: whether there is sufficient demand for the bundled items on a standalone basis from a different source than the defendant undertaking. The test's rationale is that if there is no demand for acquiring the components separately from different sellers, there is no competitive issue.

For instance, Larouche writes that "[i]t is only once customers begin to demand the two products separately [...] that they fall on distinct relevant markets."⁸⁵⁵ Likewise, the Commission explains the test in its Guidelines on Vertical Restraints: "[t]wo products are distinct if, in the absence of tying, from the buyers' perspective, the products are purchased by them on two different markets."⁸⁵⁶ It recently repeated this position in its Guidelines on Technology Transfer Agreements. Products and technologies are distinct if there is "distinct demand for each of the products and technologies forming part of the tie or bundle."⁸⁵⁷

⁸⁵² Case IV/30.787, *Eurofix-Bauco v. Hilti*, stating that "[t]he Commission does not accept the view put forward by Hilti that nail guns, cartridge strips and nails must be seen as forming one integral system: powder actuated fastening systems" (at 57).

⁸⁵³ See Commission Notice on the Definition of Relevant Market for the Purposes of Community Competition Law, explaining that the SSNIP test determines the "range of products which are viewed as substitutes by the consumer" (at 15).

⁸⁵⁴ This point is stressed by Ridyard. See Ridyard, "Tying and Bundling – Cause for Complaint?", ECLR 316 (2005), p. 316.

⁸⁵⁵ See Larouche, *Competition Law and Regulation in European Telecommunications* (Oxford, 2000), p. 261. For similar view, see also Dolmans and Graf, *op. cit.*, pp. 227-228.

⁸⁵⁶ See Commission Notice, Guidelines on Vertical Restraints, at 216.

⁸⁵⁷ See Commission Notice, Guidelines on Technology Transfer Agreements, at 191.

A strong indicator for the existence of demand to acquire the components from a different source is the presence of independent suppliers offering the bundled product on a standalone basis. In *Microsoft*, the Commission argued that a product is distinct when there is "independent demand" for the bundled or tied good.⁸⁵⁸ It rested principally on the observation that separate media players are available, and that there is clearly consumer demand for these players.⁸⁵⁹ Its observation was reinforced by Microsoft's own practice of developing separate media players for Apple and Sun and the release of individual upgrades by the software giant.⁸⁶⁰ The Commission also stressed the fact that some users of Windows do not need or want a media player in the first place.⁸⁶¹

By contrast, in *Info-Lab/Ricoh*, the Commission declined to accept that there was a separate market for empty toner cartridges because there was no consumer demand for such product.⁸⁶² This case concerned a complaint by Info-Lab against Ricoh for refusing to supply it with empty toner cartridges that were compatible with Ricoh photocopy machines. Info-Lab wanted to fill these cartridges with toner and then sell them to consumers. Info-Lab's complaint was rejected because there was no supplier producing or selling empty cartridges and thus no demand for the product.

The Community Courts have supported the Commission's focus on independent suppliers. In *Hilti*, the CFI found that the presence of independent manufacturers of Hilti-consumables "in itself" constituted "sound evidence" of separate markets.⁸⁶³ In *Tetra Pak II*, it was emphasised that, for a considerable amount of time, independent carton manufacturers were manufacturing non-aseptic cartons to be used Tetra Pak machines.⁸⁶⁴

The consumer-demand test appears to have become akin to a civil religion for determining the distinctiveness of products. Its principal prophet is the Commission. Generally, it has been saluted in the literature as a relatively simple and useful test to answer the single-product question.

⁸⁵⁸ Case COMP/37.792, *Microsoft*, noting that "[i]f there is no independent demand for an allegedly 'tied' product, then the products at issue are not distinct and a tying charge will be to no avail" (at 803).

⁸⁵⁹ Case COMP/37.792, *Microsoft*, at 804.

⁸⁶⁰ Case COMP/37.792, *Microsoft*, at 805-807.

⁸⁶¹ Case COMP/37.792, *Microsoft*, stating that "a non insignificant number of consumers choose to obtain media players separately from their operating system shows that informed consumers recognize them as separate products" (at 806).

⁸⁶² Case IV/36.431, *Info-Lab/Ricoh*, unpublished, summarised in 29th Report on Competition Policy (1999), pp. 169-170.

⁸⁶³ Case T-30/89, *Hilti*, at 66-67.

⁸⁶⁴ Case T-83/91, *Tetra Pak II*, at 60-78.

However, the consumer-demand test is not "on the right track."⁸⁶⁵ As I already observed with regards to the US Supreme Court's decision in *Jefferson Parish*, the test is deficient. The test proposed by the Commission is also vague and cursory. It provides no guidance about how to determine who the consumers of a product are or what kind of consumer opinions matter.⁸⁶⁶

In order to understand the pernicious nature of the consumer-demand test, one need only look at its application by Judge Jackson in *Microsoft III*. Applying the test to assess whether operating systems and IE are distinct or not, Judge Jackson found that the "resolution of product and market definitional problems must depend upon proof of commercial reality."⁸⁶⁷ For Judge Jackson, however, this reality was clear-cut. He stated in only one sentence that "[c]onsumers today perceive operating systems and browsers as separate products" because there was separate demand.⁸⁶⁸

Although the very detailed analysis by the Commission in *Microsoft* was certainly better than Judge Jackson's application of the test, it was still flawed.⁸⁶⁹ The Commission failed, for instance, to make a clear-cut distinction between consumer demand at the time of the bundling and post-bundling demand. As it appears from the public record, it also neglected to assess the technological advance of the Windows-WMP bundle as a separate factor.

Another problem with the consumer demand test concerns the its limited, even sometimes misleading, application to technologically-dynamic markets. Market perceptions can change over time. Separate demand for two products may fade if bundling creates genuine benefits.⁸⁷⁰ This means that consumers may then not have any separate demand for individual components.

For instance, in *IBM*, the issue was the sale of central processing units, together with main memory.⁸⁷¹ Today it is generally recognised that demand to acquire the two products separately has disappeared. With regard to Microsoft, for instance, Gastle and Boughs note that "operating systems must evolve and change such that the pattern of demand for functionality in the future might be radically different than the

⁸⁶⁵ See Evans and Padilla, "Tying Under Article 82 and The Microsoft Decision: A Comment on Dolmans and Graf", W.Comp. 503 (2005), p. 511.

⁸⁶⁶ See also Advocate General Jacobs, in Case C-53/92P, *Hilti*, stressing the need to identify the "category of clients" that require a product (at 16).

⁸⁶⁷ *United States v. Microsoft*, 87 F.Supp. 2d 30, at 49.

⁸⁶⁸ *United States v. Microsoft*, 87 F.Supp. 2d 30, at 49.

⁸⁶⁹ Case COMP/37.792, *Microsoft*, at 800-825.

⁸⁷⁰ This shortcoming is noted by Faull and Nikpay. See Faull and Nikpay, *op. cit.*, writing that "characterisation of products as independent from each other evolves over time" (p. 167).

⁸⁷¹ See IP/84/291, 2 August 1984.

present.”⁸⁷² The Commission approach also neglects Mariotti’s warning that “legal standards should not be based on advertising campaigns.”⁸⁷³

In my view, the most notable shortcoming is that the consumer-demand test concerns a one-single factor analysis. Any dominant supplier of a product could be held to infringe Article 82 EC if it would be possible to compete in the supply of a sub-component of that product. This would be bad antitrust policy. Rather, it is advisable to also consider the technological advantages of the bundle and the manufacturers’ point of view.

Evans and Padilla dismiss the consumer-demand test for a different reason. They claim that the fundamental problem with the Commission’s analysis in *Microsoft* is that it never investigated whether there was any material demand for operating systems without media player at all.⁸⁷⁴ Indeed, the Commission appears to concede that there may be no such demand.⁸⁷⁵ The perspective of their analysis is incorrect, however. In my view, the main focus of analysis should be whether there is demand for operating systems with a different media player and likewise, demand for media players separate from operating system.

As in *Jefferson Parish*, the fact that consumers would inevitably use the functionalities together is not the point to assess. In *Jefferson Parish*, there were hardly any patients getting surgery without anesthesia. As the Commission itself suggested, most computer users also use word processing programs, but no one has ever seriously claimed that word processing was part of the market for operating systems.⁸⁷⁶ It is advisable to examine who chooses which anesthesiologist goes into the operating room, or which media player goes with Windows.⁸⁷⁷ Do OEMs compete in bolting together Windows and WMP? Or, do consumers themselves bundle the various items? Is Microsoft in a position to discourage the inclusion of a second media player?⁸⁷⁸ These are the right questions. To be sure, the hard part of any antitrust analysis is to find the answers. But, looking at the separate-product question like this switches the perspective of the analysis.

⁸⁷² See also Gastle and Boughs, “Microsoft III and the Metes and Bounds of Software Design and Technological Tying Doctrine”, Va. J. L. & Tech. 1 (2001), p. 68.

⁸⁷³ See Mariotti, “Rethinking Software Tying”, Yale J. on Reg. 367 (2000), p. 378.

⁸⁷⁴ See Evans and Padilla, *op. cit.*, pp. 511-512. For a similar critique, see Van Daalen en Geursen, *op. cit.*, p. 250.

⁸⁷⁵ Case COMP/37.792, *Microsoft*, noting that “OEMs are likely to follow consumer demand for a pre-installed media player” (at 809).

⁸⁷⁶ Case COMP/37.792, *Microsoft*, at 405.

⁸⁷⁷ Case COMP/37.792, *Microsoft*, refuting Microsoft’ argument that consumers’ preference for some media players necessitates inclusion of WMP by pointing out OEMs could just as easily pre-install a competing media player (at 809).

⁸⁷⁸ Case COMP/37.792, *Microsoft*, concluding that the demand for operating systems with media players is met by allowing Microsoft to force customers to accept “a” third party media player (at 959).

In summary, the consumer-demand test is arguably deficient in many ways, but should not be dismissed simply on the basis of Evans and Padilla's critique.

5.4. The inherent-link test

Articles 81 and 82 EC specifically refer to the supplementary obligations which 'by their nature [...], have no connection with the subject of such contracts.' This wording suggests an inherent-link test.⁸⁷⁹ Under this test, products are not distinct if there is an inherent link between the products involved.⁸⁸⁰

In *Microsoft*, the Commission acknowledged that dominant companies often contest that two products are distinct, particularly "when these are used in conjunction with each other."⁸⁸¹ The argument is that if products are inherently linked, then the pricing of the individual components is irrelevant to the purchaser, as he is concerned only about the total price of the product. Let us consider *Vaessen/Moris*. Because the manufacturing process and the synthetic casings are used in conjunction with one another in order to produce *saucissons de Boulogne*, they should be thought of as an integrated product.⁸⁸² Like the American technological-integration test, the inherent-link test concentrates on the attributes of the bundle itself.⁸⁸³ While the US test is about the functionality of integration, the inherent-link test emphasises the inherent nature of the relationship between the various components of a bundle.⁸⁸⁴

Some commentators suggest a very low threshold. For instance, Kiemel submits that two products are inherently linked if the tied product 'relates' to the functioning of the bundling arrangement.⁸⁸⁵ The major disadvantage of his proposal is that it reduces the antitrust analysis, covering only bundling of non-connected items. This is contrary to the wisdom that bundling of complementary products may also lead to anti-competitive effects.⁸⁸⁶

⁸⁷⁹ See Mégret, *Commentaire - le Droit de la CE - Concurrence* (Brussels, 1997), pp. 621-622.

⁸⁸⁰ See Jones and Sufrin, *op. cit.*, p. 454; and, Larouche, *op. cit.*, p. 260.

⁸⁸¹ Case COMP/37.792, *Microsoft*, at 801.

⁸⁸² See Zanon, "Ties in Patent Licensing Agreements", *ELRev.* 391 (1980), p. 393.

⁸⁸³ *United States v. Microsoft Corp.*, 147 F.3d, defining a genuine technological integration as "any product that combines functionalities [...] in way that offers advantages unavailable if the functionalities are bought separately and combined by the purchaser" (at 948). See Chapter 3.

⁸⁸⁴ See Jansen, *op. cit.*, noting that "Die sachliche Beziehung zwischen Vertragsgegenstand und gekopplter Leistung kann sich aus deren Beschaffenheit oder Funktion ergeben" (p. 165).

⁸⁸⁵ See Kiemel, "Zur Anwendung von Art. 85 Abs. 1, Buchstabe e), EWG-Vertrag auf Lizenzverträge", *NJW* 2333 (1964), p. 2334.

⁸⁸⁶ For details, see Carlton and Waldman, "The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries", *Rand J. Econ.* 194 (2002).

The Commission appears to advance a test which is not easily satisfied and applicable in limited circumstances. In its Guidelines on Technology Transfer Agreements, the Commission recently wrote that products and technologies are distinct unless they are "by necessity linked in such a way that the licensed technology cannot be exploited without the tied product or both parts of the bundle cannot be exploited without the other."⁸⁸⁷ This seems to be in accordance with the strict view of the Court examining whether there is a "natural tie" between the components in question.⁸⁸⁸ For instance, in *Van den Bergh*, the CFI found that there was no "objective" link between the supply of freezer cabinets and the sale of ice creams.⁸⁸⁹

Like its US counterpart, the inherent-link test is a one-single factor analysis. Whereas the consumer-demand test neglects the nature of the relationships between the components of an alleged bundle, the inherent-link ignores useful information from both consumers and other producers. The case law seems to recognise this observation, at least in effect. For instance, Advocate General Colomer stressed in *Tetra Pak II* the importance potentially separating the components of the bundle rather than the links, thus suggesting an integrated product. In his view, "[s]ystems of tied sales of products which are by nature separable and can be marketed separately thus constitute abuses contrary to Article [82]."⁸⁹⁰

The Courts are more explicit. They suggest that the existence of a link between the bundled items does not exclude the possibility of defining distinct markets. It is recalled, in *Hilti*, whether the company's tying of its nail gun cartridge strips with a complementary supply of compatible nails was abusive. It was clear that the purchase of cartridges was useless without compatible nails. However, what mattered in the eyes of the CFI was that there was demand to acquire nails from other sources. As the CFI noted: "Hilti's contention that guns, cartridge strips and nails should be regarded as forming an indivisible whole [...] is in practice tantamount to permitting producers of nail guns to exclude the use of consumables other than their own branded products in their tools."⁸⁹¹

The ECJ confirmed the *Hilti* approach in *Tetra Pak II*. Interpreting Article 82(d) EC Treaty as requiring an inherent-link test, *Tetra Pak* claimed that the machines and the cartons formed an integrated distribution

⁸⁸⁷ See Commission Notice, Guidelines on Technology Transfer Agreements, at 191 (emphasis added).

⁸⁸⁸ Case C-333/94P, *Tetra Pak II*, at 37.

⁸⁸⁹ Case T-65/98, *Van den Bergh Foods Ltd v. Commission*, at 113.

⁸⁹⁰ See Advocate General Colomer in Case C-333/94P, *Tetra Pak II*, at 69.

⁸⁹¹ Case T-30/89, *Hilti*, at 68.

system.⁸⁹² However, upholding the CFI's decision, the ECJ held that "even [...] there is a natural tie between the two products in question, [tied] sales may still constitute abuse" under Article 82 EC.⁸⁹³

In sum, links are an important factor to consider, but in my view, should not be the sole basis for the separate-product test.

5.5. The historical-practices test

Some commentators have proposed interpreting the separate-product test as a historical-practices test. They advocate that products can be viewed as separate if they have previously been supplied separately.⁸⁹⁴

The first advantage is that in theory, this test provides clear guidelines for deciding whether products are distinct. If the defendant has supplied products in the past, these cannot be considered as an integrated bundle. The test emphasises obliging a dominant firm not to adopt a bundling policy that impedes competition that has already taken shape on the market. A second, related advantage is that the test can quite easily be applied by competition authorities. They should only assess whether the items of the bundle have been previously supplied separately. If applied to *Microsoft*, Windows and WMP, these would be in distinct markets because Microsoft supplied on a standalone basis from July 1998 till May 1999 WMP.⁸⁹⁵

However, I believe the test is flawed on two levels. As to its application, it is not a straightforward test especially because the product characteristics change over time. Determining whether a product has been supplied on a standalone basis in the past is more complex than the test seems to presume. For instance, consumers may view a particular component as a new product rather than a product previously supplied separately and later improved. More importantly, on a doctrinal level, the test fails to recognise that innovation often results in bundling together two previously unbundled products.⁸⁹⁶

⁸⁹² Case C-333/94P, *Tetra Pak II*, at 35.

⁸⁹³ Case C-333/94P, *Tetra Pak II*, at 37 (emphasis added).

⁸⁹⁴ For instance, see "Microsoft: the EC Abuse of Dominance Case", www.reckon.co.uk, 26 April 2005.

⁸⁹⁵ Case COMP/37.792, *Microsoft*, at 309.

⁸⁹⁶ See Woodrow De Vries, "United States v. Microsoft", *Berkeley Tech. L. J.* 303 (2005), p. 312. For a general discussion of innovation and bundling, see Rahnasto, *Intellectual Property Rights, External Effects and Anti-Trust Law – Leveraging IPRs in the Communications Industry* (Oxford, 2003), pp. 156-163.

Under a strict application of the historical-practices test, any combination of products which have been supplied in the past on a standalone basis would involve the bundling of two distinct products. Commentators like Turner stress that "there must be some room for innovative combination of elements 'normally' produced and sold separately, into new single products."⁸⁹⁷ Applying the test in the software industry would be fatal. To begin with, software programmes providing discrete functions can easily be combined and offered to consumers as a single product. Combining software functions can enable the development of entirely new capabilities, a powerful form of innovation.⁸⁹⁸ The historical-practices test condemns *a priori* these forms of innovation.

The latter flaw in particular suggests rejecting the test. The Commission appears, and rightly so, to dismiss the historical-practices test. It noted in *Microsoft* that the test focuses on historic consumer behaviour that is likely before bundling, and therefore risks ignoring efficiency benefits that derive from new product integration.⁸⁹⁹

5.6. The customary-practices test

The customary-practices test is the Community variant of the universal-practices test purported by Areeda and Hovenkamp.⁹⁰⁰ The test is also rooted in the wording of Articles 81 and 82, which suggests that bundling may be permitted if the bundle is "commercial usage."⁹⁰¹ Commercial usage is not defined. It is reasonable to assume that it depends on the business and territory concerned.⁹⁰²

The test is an important derivation of Articles 81 and 82 EC, and should therefore be viewed as restrictive.⁹⁰³ As Art and McCurdy succinctly write:

Without it, a vast class of products would be condemned under the tying analysis. The classic example is the sale of shoes with laces. Without the commercial usage exception, such a sale would be tying, simply because there is a market for shoelaces separate and apart from the sale of shoes. Shoes without shoelaces are not very useful, but theoretically they could be sold

⁸⁹⁷ See Turner, "The Validity of Tying Arrangements Under the Antitrust Laws", Harv. L. Rev. 50 (1958), p. 68.

⁸⁹⁸ See Heiner, "Assessing Tying Claims in the Context of Software Integration: A Suggested Framework for Applying the Rule of Reason Analysis", U. Chi. L. Rev. 123 (2005), pp. 126-129.

⁸⁹⁹ Case COMP/37.792, *Microsoft*, at 808.

⁹⁰⁰ See Hovenkamp and Areeda, *Fundamentals of Antitrust Law* (New York, 2002), suggesting to assess whether bundling is universal in the relevant market (pp. 835-846). See Chapter 3.

⁹⁰¹ See Jones and Sufrin, *op. cit.*, referring to "customary link" between the products (p. 454); and, Mégret, *op. cit.*, pp. 621-622.

⁹⁰² See Jansen, *op. cit.*, "Ob kopplungen handelsüblich sind, kann nicht allgemein gesagt werden, da dies branchenmäßig und gebietsweise unterschiedlich sein kann" (p. 163).

⁹⁰³ See Mégret, *op. cit.*, p. 620.

separately. And, as the Commission recognises, to condemn the shoemaker who only sells shoes with laces would be the wrong outcome⁹⁰⁴

The Commission appears *in principle* to accept the test. In its Guidelines on Vertical Restraints, it explains that "since customers want shoes with laces and this has become commercial usage, the sale of shoes with laces is not a tying practice."⁹⁰⁵ However, the Guidelines also specify that the customary-practices test is not easily satisfied.⁹⁰⁶ The test was dismissed in *Microsoft*. Defending its behaviour, Microsoft stressed that "[t]he process of integrating previously separate functionality, and the continued availability of such functionality in stand-alone products, is a pervasive feature of many technology industries."⁹⁰⁷ It submitted that "[t]he major competing OS vendors including Apple, Sun, Linux and IBM include media player functionality with their operating systems."⁹⁰⁸

The Commission correctly rejected the test in *Microsoft* or other cases. The customary-practices test is arguably flawed. The first shortcoming is that many markets are not competitive markets, and thus the commercial usage in those markets may not say much.⁹⁰⁹ The test also fails to recognise that undertakings with market power may engage in bundling for different reasons and with different effects than undertakings without market power. Another shortcoming is that the test is a one-single factor analysis. In my view, market practices by other undertakings are informative, and it is therefore important to assess them.

A final reason to dismiss the customary-practices test relates to the division of the burden of proof. Article 82 EC does not make it perfectly clear whether or not possible customary-practices should be considered in the context of the separate-product test, or whether those practices could justify a bundle. If customs should be considered at the stage of the separate-product issue, the Commission would have to show that no such usage exists. The Commission would then have to prove a negative fact. By contrast, if those customs are taken into account as a justification of bundling, the defendants have to bear the burden of proof. As the defendant parties are better informed, it may be useful to place the burden on them, thus considering customary-practices as a justification. The same shift of burden would be achieved by taking customary practices into account under Article 81(3) EC.

⁹⁰⁴ See Art and McCurdy, *op. cit.*, p. 698.

⁹⁰⁵ See Commission Notice, Guidelines on Vertical Restraints, *op. cit.*, at 216.

⁹⁰⁶ See Commission Notice, Guidelines on Vertical Restraints, *op. cit.*, at 216.

⁹⁰⁷ See Art and McCurdy, *op. cit.*, p. 698.

⁹⁰⁸ See Art and McCurdy, *op. cit.*, p. 698.

⁹⁰⁹ See Korah (1993), *op. cit.*, noting that "[t]he Commission may be right [...] to ignore custom based solely on the practice of the dominant firm" (p. 157).

The Courts have discussed the notion of commercial usage in detail. In *Tetra Pak II*, the CFI turned down Tetra Pak's appeal that its system should be treated as customarily integrated. Setting a high threshold, the CFI ruled that bundling was not commercial usage as long as there were untied sales. It noted that untied sales of 12 percent were sufficient to conclude that bundling was not the "general rule" in the non-aseptic market.⁹¹⁰ Like with the inherent-link test, the CFI seems to recognise, at least in effect, the test's shortcomings as a one-single factor analysis by finding that "[e]ven usage that is acceptable in a normal situation, on a competitive market, cannot be accepted in the case of a market where competition is already restricted."⁹¹¹ On appeal, CFI's reading was affirmed by the ECJ.⁹¹²

In sum, the test should, in my view, be rejected.

5.7. The multi-factor test

5.7.1. The outlines of the new test

The tests discussed above are in and of themselves flawed. It is obvious that the simple-product test and the historical-practices test should be dismissed. Intuition is never a proper basis for antitrust intervention, while the historical-practices test would seriously discourage innovation. The interchangeability-test is likewise to be rejected because it examines the incorrect relationship between the bundle's components. The principal objection against the other tests is that they only offer a one-single factor analysis. The separate-product issue is complex, and no one-single factor test is sufficient to answer that question. These flaws show the need for a new test.⁹¹³

In order to outline the new test, it is useful to look at the legal solutions advanced under the American case law.⁹¹⁴ I have observed earlier that both *Jerrold* and *Data General* posed the right questions.⁹¹⁵ In those cases, both courts turned to the sources that best knew those particular product markets: consumers and manufacturers. Both courts also examined the technological advantages of the bundle itself. Under EC competition law, the separate-product test should, in my view, rely on the following

⁹¹⁰ Case T-83/91, *Tetra Pak II*, at 82.

⁹¹¹ Case T-83/91, *Tetra Pak II*, at 137.

⁹¹² Case C-333/94P, *Tetra Pak II*, finding that "even where tied sales of two products are in accordance with commercial usage [...] such sales may still constitute abuse within the meaning of Article 86 unless they are objectively justified" (at 37).

⁹¹³ Yet, some commentators criticise the Community approach without suggesting another solution. See Evans and Padilla, *op. cit.*, pp. 511-512; and, Van Daalen en Geursen, *op. cit.*, p. 250.

⁹¹⁴ For details on the multi-factor test, see Weinstein, "Bundles of Trouble: The Possibilities for a New Separate-Product Test in Technological Tying Cases", Cal. L. Rev. 903 (2002), pp. 918-935.

⁹¹⁵ *United States v. Jerrold Electronics Corp.*, 187 F. Supp 545 (E.D. Pa. 1960) and *Re Data General Corp. Antitrust Litigation*.

three elements: (1) consumer perceptions (2) the view of manufacturers; and, (3) technological advance.

An evaluation of the consumer's views should take into account both demand at the time of bundling and demand once bundling has been in place for a period of time. With regards to the manufacturers' point of view, it is necessary to consider the actions of other manufacturers along with the defendant's intent in bundling the involved components. The third element is included as a sort of sanity check. Even if elements one and two, on balance, point to separate products, it must be assessed whether considering the innovative character of the bundle would be the appropriate decision.

Generally, it will be difficult for Courts and the Commission to determine whether a particular bundle represents a genuine innovative step forward. Parties would present experts giving diverging opinions. In the end, courts or the Commission would have to make a decision. This is not an easy undertaking.

However, I am not skeptical of the authorities' or courts' ability to make such an assessment.⁹¹⁶ They should first look at the consumer and manufacturer elements. These are very powerful sources of information. If both elements suggest a bundle of separate products, an integrated product should only be identified if there is clear and convincing evidence of technological progress. In doing so, genuine innovations would be protected in those rare instances that consumers and manufacturers fail to recognise the technological advance of the bundle.

5.7.2. Applying the new test to *Microsoft*

One useful way in to appraise the multi-factor test is to apply it to *Microsoft*. The Windows-WMP bundle is, using a term borrowed from Sidak, the "linchpin" of the case.⁹¹⁷ Applying the customary-practices test, Microsoft claims that Windows and WMP form an integrated product.⁹¹⁸ Van Daalen en Geursen likewise stress that it is customary for operating system vendors to offer media players together with

⁹¹⁶ For a similar positive view, see Brief of Lessig As Amicus Curiae, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), p. 20.

⁹¹⁷ See Sidak, *An Antitrust Rule for Software Integration* (Yale paper, 2001), p. 20.

⁹¹⁸ Case COMP/37.792, *Microsoft*, at 821-824. See also Art and McCurdy, writing that "the Commission paid little heed to the realities of current commercial usage. The major competing [operating system] vendors including Apple, Sun, Linux and IBM include media player functionality with their operating systems. And there is little, if any, demand for a general purpose PC operating without media player functionality" (p. 698).

their systems.⁹¹⁹ In the interim proceedings, the CFI President appeared to be impressed by Microsoft's argument and accepted *prima facie* that Windows and WMP might not be distinct.⁹²⁰

Clearly, the Commission argues that Windows and WMP are distinct products.⁹²¹ Dolmans and Graf, who represent RealNetworks, most certainly believe that media players are distinct from Windows.⁹²² Now the CFI must crack the hard nut of whether Windows and WMP are distinct products. Taking into account the limitations of the public record, the following analysis provides a quick look at how the CFI could utilise the multi-factor test.

5.7.2.1. Consumer demand at the time of bundling

The CFI should first determine whether there was separate demand for Windows and WMP on a standalone basis at the time of bundling. The court must therefore evaluate which consumers are concerned. Operating systems are typically purchased by OEMs. They load them on computers that are sold to end-users.⁹²³ This is also generally true of media players, although some computer users will download them off the Internet themselves.⁹²⁴ The view of OEMs is certainly relevant because they are quite familiar the markets involved. For one, OEMs are probably more knowledgeable than computer users because they pay for the operating systems and media players separately. Another point to stress is that OEMs are more likely than computer users to comprehend the technological advantages of software bundling.

On the other hand, even if users have less technical knowledge, their opinions are, in my view, more essential. They actually use the programmes, and thus know which ones function best. The fact that they do not pay for the products separately is also important.⁹²⁵ If a computer user chooses a different media player from WMP, the CFI knows that price has nothing to with it. Their choice is more likely to be

⁹¹⁹ See Van Daalen en Geursen, *op. cit.*, noting that "[d]at Sun en aanbieders van Linux zich de moeite getroosten mediaplayers bij derden af te nemen *onderstreept* dat er 'integrated consumer demand' bestaat en dat producenten daarop inspelen – een handelsgebruik dus" (p. 250, emphasis authors).

⁹²⁰ Case T-201/04 R, *Microsoft v. Commission*, finding that "Microsoft's argument that 'Windows and its media functionality' do not constitute two distinct products for the purpose of the application of Article 82 EC in regard to tying cannot, in the interim measures proceeding, be considered *prima facie* unfounded, regard being had in particular to the fact that for many years Microsoft and other manufacturers have integrated certain media functionalities in their client PC operating systems" (at 403).

⁹²¹ Case COMP/37.792, *Microsoft*, at 825.

⁹²² See Dolmans and Graf, *op. cit.*, stressing in particular that a number of independent developers are active in media players and Microsoft's own commercial conduct treats media players as a separate product (p. 239).

⁹²³ Case COMP/37.792, *Microsoft*, calling the OEMs the "purchasing agents" for computer users (at 119).

⁹²⁴ Case COMP/37.792, *Microsoft*, at 119.

⁹²⁵ Except for the earlier versions of QuickTime that were not for free and could be downloaded from the Internet. See Case COMP/37.792, *Microsoft*, at 135-137.

influenced by design preferences than price or a special relationship with suppliers. To be sure, the fact that most users are ignorant of the ins and outs of software engineering could disqualify them for technical product evaluation. It is possible that some consumers continue demanding a particular product even when a new integrated product is better or more useful. However, with regards to media players, this does not appear to be the case. Arguably, the average computer user is able to understand the basics of a media player.

Having decided to focus on consumers, the CFI should have a closer look at media players. Computer users want players that are able to play back *and* stream audio/video files.⁹²⁶ The media players capable of this are: WMP, Apple's QuickTime, RealNetwork's RealPlayer. From the public record, it is clear that there was separate demand for operating systems and streaming media players at the time of bundling Windows 98 Second Edition and WMP.⁹²⁷ In 1995, RealNetworks started implementing streaming media functionality in RealPlayer. In April 1999, Apple introduced support for media streaming in QuickTime.

Until July 1998, WMP or its earlier versions did not allow streaming over the Internet. In order to allow streaming, Microsoft started distributing Windows 95 together with RealPlayer in July 1997. Windows 98 First Edition was also distributed with RealPlayer. The first WMP that allowed for streaming was released in July 1998 for download from the Internet. In July 1998, Microsoft released Windows 98 Second Edition, which included WMP as a non-removable component of Windows 98 Second Edition.

5.7.2.2. Post-bundling consumer demand

The second step concerns post-bundling consumer demand. Focusing on computer users, it is clear from the continued existence of third-party media players that some users still view operating systems and media players as distinct products. For instance, since 1995 RealNetworks has registered 245 million unique installations of its media players.⁹²⁸ After July 1998, some significant share of the market continues to ignore WMP on the desktop, and installs RealNetworks' Realplayer or Apple's Quicktime. Surveys show that each media player user in June 2002 employed media players from an average of 1.7 vendors.⁹²⁹

⁹²⁶ Case COMP/37.792, *Microsoft*, at 415.

⁹²⁷ Case COMP/37.792, *Microsoft*, at 302-315.

⁹²⁸ Case COMP/37.792, *Microsoft*, at 806.

⁹²⁹ Case COMP/37.792, *Microsoft*, at 860.

Importantly, Microsoft itself has also recognised that there is non-insignificant consumer demand for alternative players after tying its streaming media player with Windows.⁹³⁰ The fact that some computer users do not want a streaming media player to be supplied with their operating system is also an indication that an important group of business users view the products as distinct.⁹³¹ Thus, consumer demand for independent media players does not appear to have faded over the years.

5.7.2.3. Actions of other manufacturers

For the CFI, the third step would be to examine the actions of other manufacturers. Because manufacturers tend to have a very good understanding of the market, this type of information is very useful. Clearly, RealNetworks believed that Windows and media player are distinct, but its opinion as *such* should have little impact on the antitrust analysis.

For one, if other manufacturers continue to offer both standalones and integrations, this strongly indicates that they believe that the value of consumer choice outweighs the increased efficiency of the bundle. The problem is that, at the time that Microsoft combined Windows and WMP, no rivals were in a position to offer both the standalones and a bundle. Rival operating system vendors like Sun and Linux did not distribute their own media players. Direct comparison between competitors is therefore impossible.

On the other hand, it is important to note that Sun and Linux do not link their operating system with a third party player in a way that makes it *unremoveable*. The fact that they do not irreversibly integrate both items suggests, in my view, that consumer choice is preferred over fully integrating products.⁹³²

5.7.2.4. Analysis of Microsoft's intent

Analysing Microsoft's intent to bundle by integrating Windows and WMP should be the next important step under this new test.⁹³³ Intent analysis should be concerned with the general aim of Microsoft's behaviour and its view on WMP itself.

⁹³⁰ Case COMP/37.792, *Microsoft*, at 808, fn 938.

⁹³¹ Case COMP/37.792, *Microsoft*, at 807.

⁹³² Case COMP/37.792, *Microsoft*, at 823.

⁹³³ The approach suggested here accords with Bavasso, "The Role of Intent Under Article 82 EC: From 'Flushing the Turkeys' to 'Spotting Lioness in Regent's Park'", ECLR 616 (2005), excluding intent from any substantive test under Article 82 EC, and only accepting intent analysis in relation to the standard of proof.

First, there is evidence that Microsoft intended to use the integration of Windows and WMP so as to force RealNetworks and Apple out of the media players market, rather than for giving consumers a better product. This is clear from the fact that Microsoft first bundled Windows 95/98 with RealPlayer, then offered WMP for download from July 1998 through May 1999, before integrating Windows and WMP. Second, Microsoft itself views WMP as distinct from Windows. Most importantly, it has developed specific Media Player versions for Apple and Sun.⁹³⁴ Other indications are the release of distinct upgrades for Windows and WMP and the marketing promotion specifically dedicated to WMP.⁹³⁵ In addition, Microsoft describes WMP as a "*stand-alone* client executable program."⁹³⁶ Legally, Microsoft applies different licensing agreements to Windows and media technologies.⁹³⁷

5.7.2.5. Innovative nature of the bundle

Finally, as a sanity check, the CFI should consider whether the bundle represents a genuine technological advance. The consumer and manufacturer elements of the test suggest a bundle of separate products. However, if the Windows-WMP bundle represents a technological breakthrough, it would be bad antitrust policy to prohibit it. Building a better mousetrap, as recognised under US law, must be promoted. In my view, there must be a clear and convincing argument that the bundle would change the software landscape.

It appears that this evidence is lacking. Surely, bundling Windows and *media players* is important, but nowhere in the public record does Microsoft or any other party suggest that the *Windows-WMP* bundle is a fundamental technological innovation. Nor was it seriously advocated that both items could not operate separately.⁹³⁸ Even assuming efficiencies, they are not described as significant. In other words, it appears that the Windows-WMP bundle is not a truly genuine technological advance.

5.7.3. Conclusions on the multi-factor test

In sum, this brief application of the multi-factor test shows that Windows and WMP are distinct products. To be sure, this is the same conclusion that was reached by the Commission. The multi-factor test as suggested, however, provides a more detailed and profound analysis than the Commission test. It looks

⁹³⁴ Case COMP/37.792, *Microsoft*, at 815.

⁹³⁵ Case COMP/37.792, *Microsoft*, at 810.

⁹³⁶ Case COMP/37.792, *Microsoft*, at 805, fn 930.

⁹³⁷ Case COMP/37.792, *Microsoft*, at 822.

⁹³⁸ Technically, separation is no problem: Case COMP/37.792, *Microsoft*, at 1028.

particularly at the technological advance and makes a clear distinction between demand at the time of bundling and the post-bundling demand. By considering a spectrum of factors, the test reduces the risk of mistakenly finding two distinct products.

6. Legal-economic analysis of the Community bundling trilogy

The decisions in *Hilti*, *Tetra Pak II*, and *Microsoft* form the Community trilogy on bundling. The reason why the Commission decided that bundling constituted anti-competitive abuse in those cases appears to have been that such a policy is operated to extend power from one market to another. It is interesting to assess this intuitive antitrust concern from a legal-economic perspective.

Having access only to the public record, Section 6 takes the published analyses as its starting point and suggests, when possible, alternative conclusions to those reached by the Commission.

6.1. *Hilti*

As Nalebuff noted, the antitrust effects in *Hilti* are a bit of a “puzzle.”⁹³⁹ I agree with his observation. In its decision, the Commission intimated that it accepted the leverage theory:

[t]he ability to carry out its illegal policies stems from its power on the markets for Hilti-compatible cartridge strips and nail guns (where its market position is strongest and the barriers to entry are highest) and aims at reinforcing its dominance on the Hilti-compatible nail market (where it is potentially more vulnerable to new competition).⁹⁴⁰

As for short-term leveraging, it does not appear that Hilti’s behaviour would have led to immediate consumer harm. Notwithstanding Hilti’s market shares, the nail industry seems to have been reasonably competitive. Given its patents, Hilti was in the position to price its cartridges at the monopoly level, but leveraging was arguably doubtful. The purchaser of a nail gun is not just purchasing the gun. He buys a complete package including the cartridge strips and nails. An attempt to charge monopoly prices with respect to the nails would increase the price of the package as a whole. This means that customers would cease to buy the bundle and would reduce the monopolist’s profits. According to Bork’s

⁹³⁹ See Nalebuff (2003), *op. cit.*, p. 17.

⁹⁴⁰ Case IV/30.787, *Eurofix-Bauco v. Hilti*, at 74.

interpretation, Hilti would not have had ability to gain additional profits by bundling the nails and the cartridge.⁹⁴¹

Some commentators believe that exclusionary leveraging would have been a likely strategy. For instance, Price argues that Hilti's behaviour would exclude competitors from the tied market because they would be forced to maintain an artificially low production run that would, in turn, increase their cost.⁹⁴² As a result, the cost increase would lead to productive inefficiency in the nail market. By contrast, in my view, foreclosing does not appear to have been feasible. The reason is simply that Hilti would not have been able to deny scale economies to other nail producers. Arguably, nail manufacturing does not seem to be an industry with significant economies of scale. Besides being used in Hilti guns, there are also many other uses for nails. This means that Hilti would not be able eliminate the competitive complements market in nails.

Having rejected the leveraging strategy in the short and long term term, the question arises whether Hilti had any benign reason justifying its conduct. Korah and Price claim that Hilti has bundled in order to monitor the use of the nail guns.⁹⁴³ At first sight, their observation has merit. The case involved patented nail guns and consumables used with those guns. It appears that Hilti could not have directly metered high-intensity users by asking them a higher fee or by placing a counter on the nail gun. Price discrimination through bundling seems to therefore be a feasible explanation.

Nevertheless, their understanding of the case is somewhat flawed. First, Hilti was unable to meter usage because the cartridges are supplied with a *fixed* number of nails.⁹⁴⁴ Second, there appears to have been serious arbitrage undermining a policy of metering. This can be deduced from the documented efforts by Hilti to prevent parallel trade. The Commission stated that "the strategy of Hilti was aimed at the whole EEC in its attempt both to stop new entrants into the market (who might start exporting) and to prevent otherwise profitable arbitrage."⁹⁴⁵ Prices for Hilti guns, cartridge strips and nails differed quite substantially between Member States. By tying the sale of cartridges to nails and requiring its distributors to follow a policy of refusing to supply these cartridges to independent manufacturers of nails, Hilti attempted to prevent the threat of arbitrage.

⁹⁴¹ See Bork, *The Antitrust Paradox* (Chicago, 1978), noting that "[t]he tying arrangement, whatever else it may accomplish, is obviously not a means of gaining two monopoly profits from a single monopoly" (p. 373).

⁹⁴² See Price, *op. cit.*, p. 87.

⁹⁴³ See Korah, *EC Competition Law and Practice* (Oxford, 1997), p. 106; and, Price, *op. cit.*, p. 87.

⁹⁴⁴ See Nalebuff (2003), *op. cit.*, p. 17.

⁹⁴⁵ Case IV/30.787, *Eurofix-Bauco v. Hilti*, at 74.

It appears to me that Hilti had a motive other than increasing its profits when it bundled nails to cartridges. It could be seriously argued that the combination of safety and reputation were driving Hilti's behaviour. In fact, Hilti claimed that independent nails had higher failure rates than its own. If consumers were to have blamed Hilti for this failure, this would have been a good reason to suspect an efficiency defence.

In *Hilti*, the Commission appears to have reached the wrong conclusion.

6.2. Tetra Pak II

Commentators likewise suggest that Tetra Pak used its market power to price discriminate among customers.⁹⁴⁶ Tetra Pak's contracts made it very difficult for customers to disguise their intensity of use. It required that customers would use only Tetra Pak cartons on its machines. The cartons could be used to monitor the usage of the machines. In order to avoid the usage of non-approved cartons, Tetra Pak was allowed to inspect the machines. In reality, in my view, price discrimination would not have succeeded. There were different valuations between consumers and countries.⁹⁴⁷ As with *Hilti*, charging a single price for cartons cross Europe would have led to imperfect price discrimination.

More importantly, the public record suggests that Tetra Pak's behaviour could lead to exclusionary leveraging. That Tetra Pak was concerned over new entry was demonstrated by its reaction to the attempted entry by Elopak in Italy.⁹⁴⁸ It is feasible that Tetra Pak's strategy limited the size of the market that would be available to any new entrant. The various contracts for the machines had different expiration dates. As a consequence, only a fraction of the users of aseptic packaging were available to a potential new entrant. This means that there was only competition for that fraction, and not in the whole market. This reduces entry, as the new entrant is less likely to profit considering he is not competing for the whole (or at least a substantial part) of the market. Interestingly, as Nalebuff noted, Tetra Pak reinforced this exclusionary effect by setting the price at which it may repurchase the machines sold or leased.⁹⁴⁹ This would make it even more costly for a firm to switch to an alternative provider.

⁹⁴⁶ See Nalebuff (2003), *op. cit.*, p. 12; and, Korah (ECLR, 1997), *op. cit.*, p. 101.

⁹⁴⁷ Case IV/31.043, *Tetra Pak II*, annex V.

⁹⁴⁸ This reaction is documented in Case IV/31.043, *Tetra Pak II*, at 76-83.

⁹⁴⁹ See Nalebuff (2003), *op. cit.*, p. 13.

In addition, there appears to have been another negative long-term effect. Tetra Pak's arrangement also discouraged entry in the markets for repair and spare parts for its machines. This had the effect of preventing the creation of an industry that could service Tetra Pak machines. This means that any new entrant in the market for packaging machines would have to enter both markets, for customers expect them to do both.

In sum, the Commission appears to have reached the correct decision by finding an abuse by Tetra Pak, but did not, however, articulate the right reasons.

6.3. Microsoft

6.3.1. The effect on competition of the Windows-WMP bundle

Microsoft and the Commission seriously disagreed over how to assess economic foreclosure with respect to integrated software products. Appropriately, the Commission recognised that its media player case against Microsoft is not a "classic tying case" where foreclosure is more direct and apparent.⁹⁵⁰ The Commission applied a theory of indirect networks. According to Microsoft, Commission has engaged in a "theoretical and speculative analysis" of potential foreclosure and it "spins out a parade of contingent horrors."⁹⁵¹ Microsoft also stressed that its motivation for bundling is cost savings and standard-setting. Microsoft's reproaches and claims are closely assessed in this section.

At the outset, it is important to have a closer look at the Commission's requirement of foreclosing competition. In this regard, the decision in *Microsoft* is unique in two ways. For one, the Commission explicitly mentioned the need to foreclose competition in the tied market when assessing a bundling allegation for the first time. The second observation is that the Commission appears to have assumed in the cases of the 80s and 90s that competition was *actually* affected and therefore foreclosed. Now it says to focus on *potential* foreclosure.

Strictly in the legal sense, the Community case law seems to support the Commission's position. As Gyselen succinctly explains, there are three foreclosure scenarios that may arise: (1) predatory intent; (2) actual foreclosure; and, (3) potential foreclosure.⁹⁵²

⁹⁵⁰ Case COMP/37.792, *Microsoft*, at 841.

⁹⁵¹ See Art and McCurdy, *op. cit.*, p. 699.

⁹⁵² See Gyselen, "Rebates: Competition on the Merits or Exclusionary Practice?", 8th EU Competition Law and Policy EUI Workshop, 2003, pp. 6-7.

Of course, intent analysis is useful. For the separate-product issue, it plays an essential role in the multi-factor test proposed earlier. However, evidence of exclusionary intent should never be sufficient cause to apply Article 82 EC. As Advocate General Jacobs notes in *Glaxosmithkline* with regards to a policy limiting parallel trade in Europe:

a dominant pharmaceutical undertaking which restricts the supply of its products does not necessarily abuse its dominant position within the meaning of Article 82 EC merely because of its intention thereby to limit parallel trade. I consider it plausible [...] that an intention to limit parallel trade should be one of the circumstances which will ordinarily render abusive a refusal of supply on the part of a dominant undertaking.⁹⁵³

European antitrust law must therefore concentrate on the latter two scenarios of foreclosure. The usual description of the concept of exclusionary abuse is as follows:

the concept of abuse is an objective concept relating to the behaviour of an undertaking in a dominant position which is such as to influence the structure of the market where, as result of the very presence of the undertaking in question, the degree of competition is weakened and which, through recourse to methods different from those which condition normal competition in products or services on the basis of the transactions of commercial operators, has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition.⁹⁵⁴

Obviously, if there is empirical evidence that the dominant firm's behaviour has actually produced foreclosure effects, the company may run afoul of Article 82 EC. As a matter of fact, the Courts have never invalidated a Commission decision under Article 82 EC because it lacked evidence of actual foreclosure.⁹⁵⁵ Notably, the ECJ found the mere fact of actually implementing a foreclosure practice to be sufficient ground for antitrust liability. For instance, in *Compagnie Maritime Belge*, the Court considered that "where one or more undertakings in a dominant position actually implement a practice whose aim is to remove competitor, the fact that the result sought is not achieved is not enough to avoid the practice being characterized as an abuse."⁹⁵⁶

An element of abuse is also that, in terms of competition, the prohibition covers potential impact. Arguments to the contrary fit more naturally with the US ideas on antitrust, and have generally not been favoured by the Community Courts or Commission. A policy always requiring a concrete effect would

⁹⁵³ See Advocate General Jacobs, in Case C-53/03, *Synetairismos Faramkopoion Aitolias & Akarnanias and others v. Glaxosmithkline AEVE*, opinion of 28 October 2004, not yet reported, at 69-70.

⁹⁵⁴ Case T-65/98, *Van den Bergh Foods Ltd. v. Commission*, at 157.

⁹⁵⁵ See Gyselen, *op. cit.*, p. 7.

⁹⁵⁶ Cases T-24-26/93 and 28/93, *Compagnie Maritime Belge and others v. Commission* [1996] ECR II-1201, at 149.

seriously restrict the ability of competition authorities to intervene until some detrimental impact has actually occurred, which may in fact be too late to reverse. This is a problem particularly with network markets. Otherwise put, EC law covers "a degradation of *market structure and dynamics* – behaviour exhibiting a tendency to exclude, rather than a likelihood of actual foreclosure to competitors."⁹⁵⁷ The ECJ made this clear in *Tetra Pak II* by stating that "the aimed pursued [of competition law], which is to maintain undistorted competition, rules out waiting until such a[n abusive] strategy leads to the actual elimination of competitors."⁹⁵⁸

Recently, an argument along the same lines as Microsoft has been discussed by the CFI. In *British Airways*, the applicants suggested that an actual effect must be demonstrated.⁹⁵⁹ The Court noted that:

[i]n the first place, for the purpose of establishing an infringement of Art. 82 EC, it is not necessary to demonstrate that the abuse in question had a concrete effect on the markets concerned. It is sufficient in that respect to demonstrate that the abusive conduct of the undertaking in a dominant position *tends* to restrict competition, or, in other words, that the conduct is *capable of having, or likely to have*, such an effect.⁹⁶⁰

CFI President Vesterdorf in *Microsoft* also appears to believe that proof of actual anti-competitive effects is essentially not required.⁹⁶¹ Thus, the essential requirement demonstrating concrete effects on the market in the form of reduced output or higher prices is ruled out as a matter of law. Typically, any dominant company will try to challenge the finding of potential foreclosure by arguing that the market circumstances make it unlikely or impossible. It is up to the Commission to rebut this argument. This means that the Commission must assess the alleged abuse in its market context and demonstrate that it is capable of producing appreciable foreclosure effects. In this sense, there is arguably no *per se* test.⁹⁶²

As for the potential effects demonstrated by the Commission, it seems to be defensible that Microsoft pursued a long-term leveraging policy. Some commentators disagree with this finding. They believe that

⁹⁵⁷ See Sinclair, "Abuse of Dominance at a Crossroads – Potential Effect, Object and Appreciability Under Article 82 EC", ECLR 491 (2004), p. 493 (emphasis author).

⁹⁵⁸ Case C-333/94P, *Tetra Pak II*, at 300.

⁹⁵⁹ Case T-219/99, *British Airways v. Commission*, decision of 17 December 2003, not yet reported.

⁹⁶⁰ Case T-219/99, *British Airways v. Commission*, at 293 (emphasis author). See also Case T-228/97, *Irish Sugar v. Commission* [1999] ECR II-2969, noting that it is essential to assess whether the defendant's conduct "tends" to strengthen the dominant position by distorting competition (at 114). This interpretation likewise echoes the Commission's statement in Notice on the Application of the Competition Rules to Access Agreements in the Telecommunications Sector, [1998] OJ C265/2 that discrimination occurs if the defendant's conduct is "sufficiently likely to restrict or distort *actual or potential* competition" (at 120) (emphasis added).

⁹⁶¹ Case T-201/04 R, *Microsoft v. Commission*, at 400.

⁹⁶² This is also recognised by Whish. See Whish, "Should there be *per se* abuses under Article 82 EC?", WuW 919 (2001).

Microsoft did not leverage.⁹⁶³ Conversely, other commentators like Picker believe that Microsoft's bundling strategy led to leveraging in the short term. I will carefully examine both positions.

As for the latter group, Picker argues that, in the short term, Microsoft profitably leveraged its power in the Windows market to the market for media players.⁹⁶⁴ In my view, it is doubtful whether Microsoft bundled in order to increase its current Windows and WMP profits. As Ayres and Nalebuff explain, a one-off Chicago game suggests that Microsoft would not gain from doing so.⁹⁶⁵ For their argument, they assume that Microsoft has a monopoly in Windows and that Windows's consumer value is € 100. The value of WMP is € 2, and the value of Real Player is € 3. RealNetworks will not exit the market until the price of Real Player is zero. With a zero price for Real Player, Microsoft could charge € 103 for Windows, as consumers value the package of Windows plus a free Real Player at € 103. In contrast, the Windows-WMP bundle is only worth € 102.

If Microsoft was not concerned with the direct profits of WMP, why then did the software giant bundle its Windows programme with Media Player? I think that there are two feasible explanations, both relating to leveraging in the long term.

For one, the argument could be made that the Windows-WMP bundle will lead to defensive leveraging. Microsoft was concerned with the potential threat of WMP to its Windows monopoly. The media player market is a threat in that it could be used as an entry point into the Windows market. Analogous to the browser market and the US proceedings, Microsoft was afraid that other media players would use its platform to enter and compete against Windows. To eliminate this threat, rival media players should be driven out of the market. Of course, Microsoft asserts that the European case is different. Their argument is simple: a media player is much less likely to develop into an operating system than a browser program. Commentators also believe that media players would only be a weak beachhead in a larger attack on Windows.⁹⁶⁶

However, rival players have the potential to morph into broad-based platforms like Windows when seriously combined with other software such as Java. Indeed, Media players do expose their own APIs.

⁹⁶³ For a different view, see Furse, "Abusive Dynamics", ECLR 199 (2004), p. 200.

⁹⁶⁴ See Picker, "Unbundling Scope-of-Permission Goods: When Should We Invest in Reducing Entry Barriers?", U. Chi. L. Rev. 189 (2005), p. 202.

⁹⁶⁵ See Ayres and Nalebuff, *op. cit.*, p. 2.

⁹⁶⁶ See Picker (2005), *op. cit.*, p. 202.

Applications can be written on them, as AOL has done with RealNetwork's media player.⁹⁶⁷ To be sure, media players now seem to not be as threatening to Windows as other competing Internet browsers in the US case. However, they may become a potential threat in the future for part of the Windows functions. With defensive leveraging, a company like Microsoft is 'killing' the innovative nature of the market for media players, and thereby excluding any threat whatsoever from that market.

Second, this case is not only about the PC version of Windows. Now operating systems may be found in mobile phones, TV set-top boxes and handheld devices. When studying potential foreclosure on media markets, one must consider the two-sided character of the market.⁹⁶⁸ One is the market for the actual media players running on the consumers' desk top. The other is software that is sold by Microsoft, RealNetworks or Apple to content providers allowing them to encode their content in a format delivering their programmes to media player users.

Competition in the market for encoding software for content providers is subject to strong network effects. The more PCs that have a decoder for a specific format, the more attractive it becomes for content providers to encode in that format. As encoding in multiple formats is costly, they prefer using only one format. It is clear that bundling by Microsoft in the Windows market with its media format decoding software can completely tip the market for encoding software toward itself. In that case, the market for media players will tip to Microsoft's proprietary standard. As Kühn, Stillman and Caffarra rightly observe, Microsoft is another example of how bundling today can completely change competition in the market in the future.⁹⁶⁹

A possible motivation that could be brought forward by Microsoft is that software bundles can generate efficiencies by saving costs and enhancing functionality. These claims should be assessed very carefully. It is doubtful whether bundling is necessary to realise these possible efficiencies.⁹⁷⁰ For one, having one standard lowers costs for suppliers and consumers. It is accepted for competing formats fight over a *de facto* standard, or for industry associations to set such standards. On the other hand, this observation does *not* imply that a monopolist must be allowed to lever its market in order to create a proprietary standard in another market. Such a policy could lead to serious costs, such as setting the

⁹⁶⁷ Case COMP/37.792, *Microsoft*, noting that "[s]oftware programmes can be written to the Window Media Player APIs" (at 892), that "AOL 6.0 and 7.0 make API calls to RealPlayer" (at 966), and that "media Players – Microsoft gives RealPlayer as an example – expose their APIs" (at 972).

⁹⁶⁸ See Kühn, Stillman and Caffarra, "Economic Theories of Bundling and Their Policy Implications in Abuse Cases: An Assessment in the Light of the Microsoft Case", ECJ 85 (2005), pp. 101-102; and, Picker (2005), *op. cit.*, p. 203.

⁹⁶⁹ See Kühn, Stillman and Caffarra, *op. cit.*, p. 101.

⁹⁷⁰ See Kühn, Stillman and Caffarra, *op. cit.*, p. 105.

wrong standard, reduced incentives for innovation, and all the inefficiencies resulting from establishing a second monopoly.

6.3.2. The remedy fails to address all competition concerns

The Commission ordered Microsoft to sell a version of Windows without WMP. Will this remedy, as the old saying goes, change the price of fish? In my view, it would not. By common perception, I argue that the remedy did not go far enough.

During the settlement talks, Microsoft offered some version of "mandatory versioning" as an alternative to unbundling.⁹⁷¹ When choosing between these two options, the Commission accurately picked the remedy to unbundle Windows and WMP over the obligation to carry rival players. However, as Ayres and Nalebuff note, the Commission's choice was correct, but there was no need to choose.⁹⁷² Perhaps a better remedy would have been combining both approaches.

Microsoft first suggested including rival media players in a CD to be supplied when buying a computer.⁹⁷³ Because it would not have created a level-playing field in the market for players, this remedy was fundamentally flawed, and correctly, I think, dismissed. Arguably, less-informed consumers would simply ignore the CD. Moreover, it would be likely that even knowledgeable consumers would disregard this option, as they probably did not want to spend time on installation.

Later, Microsoft and the Commission discussed the option of pre-installing rival players in addition to WMP. Microsoft would be required to include three other media players in its Windows with media functionality. The Commission would select two players and the OEM would have the choice of the third one.⁹⁷⁴ This remedy has two advantages. It can restore some of the level-playing field in the market because it helps increase the availability of rival media players. The other advantage is that it would directly mitigate the tipping threat towards the Windows media format. The disadvantage for Microsoft is that extra players would take up valuable space in the computer. It is doubtful whether this is a genuine problem. I believe the size of a media player is less than 10 megabytes. As there are hard drives of 60 megabytes or more, this seems to be an irrelevant cost.

⁹⁷¹ The term is borrowed from Picker. See Picker, "Pursuing a Remedy in Microsoft: The Declining Need for Centralised Coordination in a Networked World", J. Inst. & Theoretical Econ. 113 (2002), pp. 115-116.

⁹⁷² See Ayres and Nalebuff, *op. cit.*, p. 6.

⁹⁷³ See www.windowsitpro.com/Article/ArticleID/42040/42040.html, 15 March 2004.

⁹⁷⁴ See www.zdnet.co.uk/print?TYPE=story&AT=39150622-39027001t-21000014c, 20 March 2004.

However, mandatory versioning has one fatal shortcoming. It would not solve the underlying problem that WMP is loaded on all new machines running on Windows. As a result, content providers would still have an incentive to encode in Windows format. To prevent the tipping threat, it is crucial that content providers believe that alternative formats are of superior quality or with a wider reach.⁹⁷⁵ Other media players should remain viable in the market. Some people must therefore *not* have WMP on their Windows. In order for this to happen, it is essential, in my view, to go beyond Microsoft's must-carry plan.

Under the unbundling remedy, Microsoft is forced to negotiate with OEMs like Dell, HP, Lenovo and Fujitsu Siemens to have the full-fledged version of Windows installed on Windows. It would have to bargain to get WMP on the desktop, just as RealNetworks, Apple, and all other media players companies currently bargain for the distribution of their software. It should be stressed that the remedy is based on the assumption that OEMs would be interested in actually buying the unbundled version, now called Windows XP N.⁹⁷⁶

However, I submit that it is likely that OEMs will snub the antitrust altered version of Windows for two interrelated reasons. For one, given that today Microsoft is giving away WMP, it can be expected that it will continue to give it away. That suggests that Windows XP N will be offered for the same price as the standard version of Windows XP. A second reason is that OEMs would not install Windows XP N on their computers, as users now expect to have a media player included. As a consequence, the lack of interest from OEMs for Windows XP N would undermine the effectiveness of the remedy. Press reports suggest that this doom scenario is actually happening.⁹⁷⁷

Arguably, a better remedy would have been to combine both approaches discussed. Unbundling is necessary in order to mitigate Microsoft's unique ability to ensure that its WMP would be on all new machines. To ensure that OEMs may actually choose the version without WMP, Microsoft must be required to carry rival media players on the unbundled version of Windows. To avoid interoperability problems, rival players could license WMP decoders in order to play WMP files.

⁹⁷⁵ See Picker (2005), *op. cit.*, writing that "Windows isn't just software: it is one of the best possible vehicles for distributing software" (p. 204).

⁹⁷⁶ There has been dispute over the name of the new Windows version. Microsoft wanted to name it 'Windows XP Reduced Media Edition.' The Commission refused this label, saying that the name would discourage sales and mislead customers. See "Microsoft, EU Agree on Slimmer Version of Windows System", *Wall Street Journal*, 29 March 2005.

⁹⁷⁷ See www.zdnet.co.uk/software/windows/0,39020396,39203741,00.htm, 20 June 2005.

After the decision in *Microsoft*, US officials appear to be reacting with more emotion than diplomacy. They patronisingly lectured the EC, saying that sound antitrust policy must avoid chilling innovation and competition even by dominant undertakings.⁹⁷⁸ Conversely, Microsoft is free to innovate in virtually every way under the EC decision. Microsoft should fight the media player battle through innovation, not by leveraging a possible inferior product onto reluctant consumers. It could be argued that the contested decision will give Microsoft *more*, not less, incentive to innovate. The interest of the Commission was opening affected markets to competition so that increasing innovation would benefit all consumers in the form of better choices and lower prices. It is ironic that the firms whose innovative efforts Microsoft anti-competitively suppressed were mostly American.

7. Choosing the legal standard for bundling

Which standard should be applied for bundling? Many tests have been applied or suggested. I discussed in Chapter 1, for instance, the absolute and modified *per se* illegality tests. The advantage of these tests is arguably that they can lead to swift decisions in many cases. However, their application will be neither simple nor error-free, for two main reasons. Those tests are therefore to be immediately dismissed.

First, the tests will apply to only a few, if any, cases. Many cases of bundling will also raise efficiency justifications that are at least plausible. Where valid efficiency claims are made, it is necessary to balance the benefits against harms in order to reduce the likelihood of error. Any absolute *per se* test is therefore to be rejected immediately. The modified *per se* test shouldn't be seriously considered either, as it also downplays and sometimes neglects efficiencies. Second, the modified *per se* test will not really involve much of a reduction in the needed amount of analysis.

The antitrust literature and case law advocates a number of other tests for bundling.⁹⁷⁹ In Section 7, I will discuss: (1) the software-specific test; (2) the predation test; (3) the refusal to supply test; (4) the modified *per se* legal test; and, (5) the rule of reason test.

⁹⁷⁸ For instance, see www.usdoj.gov/atr/public/press_releases/2004/202976.htm, 24 March 2004.

⁹⁷⁹ Some commentators have proposed to challenge Microsoft's monopoly in the operating systems market directly by changing copyright laws. For instance, see Brennan, *Do Easy Cases Make Bad Law? Antitrust Innovations or Missed Opportunities in United States v. Microsoft* (AEI-Brookings paper, 2002), pp. 44-45. By contrast, I focus in this thesis on antitrust solutions. For a detailed general argument that competition law should intervene to ensure that private parties cannot extend their intellectual property protection beyond the limits allowed by law, see Ulrich, *Expansionist Intellectual Property Protection and Reductionist Competition Rules: A TRIPS Perspective* (Berkeley Center for Law and Technology, 2005).

7.1. The software-specific test

Considering *Microsoft*, some commentators suggest applying a software-specific test. Software is inherently different, and should therefore be subjected to a different legal regime. These commentators prefer a distinct legal test, although they are unclear over the bundling test in general.

Their software-specific test could be applied on two levels: the separate-product issue or the analysis of the effects on competition. Focusing on the former, Elhauge claims that software products that combine historically distinct products in a new and useful way should be considered one "integrated" product rather than two distinct products.⁹⁸⁰ For the latter approach, Rule argues that technological bundling in itself should not be attacked.⁹⁸¹

There are two important reasons to reject the software-specific test. First, as White rightly observes with regards to the US proceedings, the test must be designed to deal with all markets, not just high-tech markets.⁹⁸² More importantly, the test must leave a lot of room for strategic bundling. As with Lessig's version of the technological-integration test, it may create an incentive for software producers and developers to modify their code so as to make it fit within the terms of the test.⁹⁸³ In sum, the software-specific test must be dismissed.

7.2. The predation test

Another way to address the issue is to abandon the concept of bundling. There has been suggestion to redefine bundling as predatory behaviour.⁹⁸⁴ As Tirole recently notes, "[i]t is difficult to think of reasons that tying should be considered a separate offense. Competition policy should therefore analyze tying cases through the more general lens of a predation test."⁹⁸⁵

A predation test looks at the willingness of the company under investigation to sacrifice short-term revenues or profits in exchange for larger revenues anticipated to materialise later once a monopoly has

⁹⁸⁰ See Elhauge, "Combination Lock: the DC Circuit Incorrectly Applied an Integrated-Product Test in *Microsoft* Case", *San Francisco Daily Journal*, 14 July 14, at 4.

⁹⁸¹ See Rule, "The EC Decision Against *Microsoft*: Windows on the World, Glass Houses, or Through the Looking Glass?", www.antitrustsource.com, 30 June 2004.

⁹⁸² See White, "Microsoft and Browsers: Are the Antitrust Problems Really New?", in: Eisenach and Lenard (eds.), *Competition, Innovation and the Microsoft Monopoly: Antitrust in the Digital Marketplace* (Boston, 1999), writing that "[t]he antitrust issues at stake in *Microsoft* are not new and are not unique to computer software" (p. 139).

⁹⁸³ See Lessig, *op. cit.*, pp. 39-42.

⁹⁸⁴ See Tirole, "The Analysis of Tying Case: A Primer", *Comp. Pol'y. Int'l.* 1 (2005); and, Brennan, *op. cit.*, pp. 42-43.

⁹⁸⁵ See Tirole, *op. cit.*, p. 15.

been created, or the dominant position has been strengthened.⁹⁸⁶ In other words, this test asks whether the conduct in question would make business sense for its tendency to eliminate or lessen competition.⁹⁸⁷ Although the test has some flaws⁹⁸⁸, it can surely be useful in unilateral refusal to deal and predatory pricing cases.

I have my doubts whether the test would work for bundling. In my view, there are at least two problems with a predation test.⁹⁸⁹ First, the test requires recoupment of the short-term profits sacrificed. If there is no sacrifice of immediate profits, the price charged is considered efficient, and thus lawful. From the outset, bundling is likely to be profitable to the dominant company, surely in the short-term. Neither short-term sacrifice nor subsequent recoupment is necessary in order to make the practice profitable. This means that the conduct would not run afoul of competition rules. Second, the test does not account for the cost or likelihood of errors. Its application is *independent of the nature* of the behaviour, and prior evidence as to whether the practice is likely to be good or bad. In conclusion, a predation test is likely to yield unpredictable results with regards to bundling.

7.3. The refusal to supply test

Other commentators like Art and McCurdy assert that bundling should be assessed under the refusal to supply test of *Bronner*.⁹⁹⁰ Like with the predation test, Art and McCurdy prefer to abandon the concept of bundling. Essentially, they advocate that any bundling case could be re-interpreted as a refusal to supply case.

In order to understand and dismiss their argument, it is first useful to have a closer look at *Bronner*. Mediaprint, a publisher of two Austrian newspapers, refused to grant its rival Bronner access to its nationwide newspaper home-delivery network. Bronner claimed that a dominant company is required to allow access to competitors in the downstream market unless refusal to supply can be objectively justified. It contended that the access requested was essential for its business as it was not economically feasible to establish its own distribution network due to the limited circulation of its

⁹⁸⁶ See Hovenkamp, "Exclusion and the Sherman Act", U. Chi. L. Rev. 147 (2005), pp. 155-158.

⁹⁸⁷ See Vickers, "Abuse of Market Power", Econ. J. 244 (2005), p. 257.

⁹⁸⁸ Theoretically, the test must specify the benchmark for assessing whether there has been sacrifice and that is very difficult. In addition, it is unclear whether sacrifice is a necessary or sufficient condition for the application of Article 81 and 82 EC. See Vickers, *op. cit.*, pp. 250-256.

⁹⁸⁹ By contrast, Brennan seems to believe that bundling could be assessed under a predation test. See Brennan, *op. cit.*, p. 42.

⁹⁹⁰ See Art and McCurdy, *op. cit.*, pp. 703-707.

newspaper. The ECJ rejected Bronner's argument.⁹⁹¹ For access, the facility must be truly indispensable and the refusal is likely to eliminate all competition in the market. The ECJ observed that other forms of distribution existed, and, while they were less favourable, did not lead to a finding that Mediaprint's service was essential.

Applying the *Bronner* scenario to *Microsoft*, the Commission should have examined whether Microsoft was dominant in a market for the supply of distribution services for media players. It should have assessed, Art and McCurdy claim, whether the software giant abused this dominant position through refusal to supply appropriate distribution services that were necessary to maintain competition in the media player market. In other words, they assert that *Microsoft* concerns access to the OEM distribution channel like Bronner's access to Mediaprint's distribution network.

Applying the refusal to supply test of *Bronner*, the authors claimed that the refusal to include third-party media player functionality in Windows would not constitute an abuse under Article 82 EC. Art and McCurdy stress four arguments why the principles of *Bronner* should not apply. First, distribution in Windows is not indispensable, as Internet downloading is a feasible but only "less advantageous" distribution channel.⁹⁹² Second, there is no new product being prevented. By contrast, the essence of the Commission's complaint is that Microsoft is offering precisely the same functionality as its competitors in the putative relevant market. This suggests that the hypothetical refusal to deal causes foreclosure primarily to directly competitive products in the same market, not a secondary market. Third, there is no foreclosure because the media player market appears to be far more vibrant than the newspaper market in *Bronner*.⁹⁹³ Finally, Microsoft has objective justification for its own integration, as the Windows-WMP bundle is innovative and beneficial for consumers.

Although Art and McCurdy's proposition has merit at first glance, a closer examination reveals that their approach is flawed and to be dismissed. As for the test itself, there is surely room for discussion as to whether the criteria of *Bronner* apply or not. To make this point, I refer to an article written by Creuss and Agustinoy.⁹⁹⁴ Stressing that the Windows system is the main gate to the Internet, they succinctly

⁹⁹¹ Case C-7/97, *Bronner*, at 36-47. For details on the essential facilities doctrine, see Doherty, "Just What Are Essential Facilities?", CMLRev. 38 (2001); Bergman, "Editorial: The Bronner Case – A Turning Point for the Essential Facilities Doctrine?", ECLR 59 (2000); Hancher, "Case Note on Oscar Bronner", CMLRev. 1289 (1999); and, Temple Lang, "Defining Legitimate Competition: Companies' Duties to Supply Competitors and Access to Essential Facilities", *Fordham Int'l L. J.* 437 (1994).

⁹⁹² Case COMP/37.792, *Microsoft*, at 119.

⁹⁹³ Case COMP/37.792, *Microsoft*, at 919.

⁹⁹⁴ See Creuss and Agustinoy, "The Operative System as an Essential Facility: An Open Door to Windows?", *W.Comp.* 57 (2000), pp. 71-77.

argue that Windows is an essential facility because it is impossible to create a parallel substitute or alternative compatible system for accessing the Internet. If they are right, then Microsoft behaviour constitutes an abuse.

A second observation is that Art and McCrudy's approach raises pressing questions in general. On an analytical level, Art and McCurdy fail to give any theoretical reason why we should apply a refusal to supply test. The authors only make it clear that *if the facts of the case are seen as a refusal to supply scenario*, a condemnation of Microsoft for bundling would create serious tension with the restrictive interpretation of the essential facilities doctrine in *Bronner*.⁹⁹⁵ They note:

[I]f the Commission cannot satisfy the very high standard necessary to impose a 'must carry' remedy, there is something fundamentally wrong with allowing the Commission to satisfy a much lower standard by misapplying a traditional tying analysis to product integration and forcing Microsoft to remove the integrated media player functionality from the many interdependent and complementary elements of its operating system.⁹⁹⁶

In addition, they emphasise that antitrust liability under EC law would conflict with the US decisions in *Trinko* and *Re Microsoft Corporation Antitrust Litigation*.⁹⁹⁷ In my view, none of these arguments explain *why* the refusal to supply test must be applied. I have three reasons for this contention.

First, concerning the potential divergence with US law, it should be stressed that EC competition law is distinctly 'European.' The mere fact that Community legal system may conflict with the US approach is no argument to change the law. Second, the fact that the Commission gave extensive consideration to mandatory versioning indeed underscores the importance of the OEM distribution channel. However, it does not, as Art and McCurdy seem to suggest, signal that the core competitive harm stemmed from Microsoft's privileged access to this channel.⁹⁹⁸

Third, on a doctrinal level, Microsoft appears to assume that bundling and the essential facilities doctrine are mutually exclusive. For one, surely, there may be some overlap when it concerns bundling of 'essential' components. One could think of the refusal to supply the essential component of a bundle in an un-tied form. However, many disputes are beyond the scope of essential facilities. This observation

⁹⁹⁵ See Art and McCurdy, *op. cit.*, p. 703.

⁹⁹⁶ See Art and McCurdy, *op. cit.*, p. 705.

⁹⁹⁷ *Verizon Communications Inc. v. Trinko LLP (Trinko)* 540 US 682 (2004) and *Re Microsoft Corporation Antitrust Litigation* 333 F.3d 517 (4th Cir. 2003). *Trinko* significantly limits the circumstances in which antitrust law forces a firm to assist its competitors by providing access to its infrastructure. The latter case arose between Sun Microsystems and Microsoft. In that case, the Court of Appeals overturned a lower court's order requiring Microsoft to carry Sun's Java middleware product on its Windows system.

⁹⁹⁸ See Art and McCurdy, *op. cit.*, p. 700.

already suggests that the concept of bundling has its own scope of application. Moreover, as Temple Lang writes with regard to Article 82, "the types of infringement are *not* mutually exclusive."⁹⁹⁹

That the same set of facts and circumstances may constitute distinct abuses seems to be a settled issue. The position was recently confirmed by the CFI. In *Van den Bergh*, it affirmed that the Commission has the power to determine what type of abuse a particular set constitutes. In reaction to Van den Bergh's plea to apply Advocate General Jacobs' opinion in *Bronner* to the case at hand, the Court stated that the reference is "irrelevant in the present case because [...], [the Commission] did not claim in the contested decision that [Van den Bergh's] freezer cabinets were an 'essential facility', which is the issue examined in his opinion."¹⁰⁰⁰

In the same case, the CFI also appears to identify a second argument why it did not consider the cabinets an essential facility. It stressed that "it is not necessary for [Van den Bergh] to transfer an asset or to conclude contracts with persons which it has not selected in complying with the contested decision."¹⁰⁰¹ Applying these considerations to *Microsoft*, the same conclusion prevails. The transfer of an asset is not at issue. Microsoft didn't exclude third-party media players from Windows either, as consumers were free to install other players on their operating system.

In sum, the refusal to supply approach should, in my view, be dismissed. Rather, it could be argued that, given the shortcomings of the essential facilities doctrine, bundling is a fruitful alternative. For instance, very recently the French Competition Authority decided that Apple's refusal to license its digital rights management technology to a competitor in the downstream market for music downloads did not constitute an abuse because Apple's technology was not an essential facility.¹⁰⁰² Arguably, the dispute could have been characterised as a bundle between the upstream market for Apple's digital rights management and the downstream market for music downloads.

⁹⁹⁹ See Temple Lang, "Monopolisation and the Definition of 'Abuse' of a Dominant Position under Article 86 EEC Treaty", CMLRev 345 (1979), p. 363.

¹⁰⁰⁰ Case T-65/98, *Van den Bergh Foods Ltd. v. Commission*, at 161.

¹⁰⁰¹ Case T-65/98, *Van den Bergh Foods Ltd. v. Commission*, at 161.

¹⁰⁰² Decision 04-D-54, *VirginMega v. Apple Computer France*, 9 November 2004, www.conseil-concurrence.fr/pdf/avis/04d54.pdf. For details, see Mazziotti, "Did Apple's Refusal to License Proprietary Information enabling Interoperability with its iPod Music Player Constitute an Abuse under Article 82 of the EC Treaty?", W.Comp. 253 (2005); and, Deneuter, "No Abuse of Market Dominance by Apple according to the French Competition Council", www.ulys.com, 23 December 2004.

7.4. The modified *per se* legal test

Recently, some commentators have been advocating a *laissez-faire* approach to bundling.¹⁰⁰³ Ahlborn, Evans and Padilla suggest a modified *per se* legal rule for bundling on the basis that the efficiency effects of bundling are ubiquitous, while the anti-competitive effects are highly unlikely.¹⁰⁰⁴ In rare instances of antitrust intervention, they advance a delicate assessment of the parameters and assumptions of the relevant economic theories. Based on a decision theoretic argument, Hylton and Salinger come to the same conclusion and propose applying a modified legal test.¹⁰⁰⁵

Under EC law, the exceptional circumstances test for compulsory licensing, as enunciated in the *Magill* and *IMS* series of decisions, is an example of this approach.¹⁰⁰⁶ The starting point of the antitrust analysis in those cases is that property owners may refuse to license even if they are dominant. Being dominant, they may only be forced to license when *all* of the following conditions hold: (1) access is indispensable for providing a product to a secondary market; (2) there is demonstrable potential demand for the would-be product; (3) denial of access would eliminate all competition in a secondary market; and (4) there are no objective justifications for the refusal to give access.¹⁰⁰⁷

I believe that a modified *per se* legal test like in *IMS* is too lenient for bundling. First, its proponents wrongly make a blanket assertion of efficiencies due to bundling. Contrary to their claims, steady-fast tying of products that could be sold separately in competitive markets is no basis for the conclusion that bundling almost invariably produces consumer benefits.¹⁰⁰⁸ Second, the literature discussed in Chapter 1 also shows that bundling allegations merit careful investigation when employed by firms holding market power. Leveraging in the long term is a particularly serious problem that must be considered.

There is perhaps a third reason why there should be a higher threshold for compulsory licensing than bundling. The former directly concerns the essence of an IP right itself, whereas bundling relates to the

¹⁰⁰³ See also chapter 1.

¹⁰⁰⁴ See Ahlborn, Evans and Padilla, *The Antitrust Economics of Tying – A Farewell to Per se Illegality* (AEI-Brookings paper, 2003).

¹⁰⁰⁵ See Hylton and Salinger, "Tying Law and Policy: A Decision Theoretic Approach", *Antitrust L. J.* 69 (2001).

¹⁰⁰⁶ For details, see Houdijk, "Rechtspraak op het Snijvlak van Mededingingsrecht en Intellectuele Eigendomsrecht: het Evenwicht tussen de Rechtsgebieden in het Arrest *IMS Health*", *SEW* 23 (2005); Derclaye, "The *IMS Health* Decision: A Triple Victory", *W.Comp.* 397 (2004); Prete, "From *Magill* to *IMS*: Dominant Firms' Duty to License Competitors", *EBLR* 1071 (2004); and, Hatzopoulos, "Case C-418/01, *IMS Health GmbH v. NDC Health GmbH*", *CMLRev.* 1613 (2004).

¹⁰⁰⁷ Geradin, "Limiting the scope of Article 82 EC: What Can the EU Learn from the U.S. Supreme Court's Judgment in *Trinko* in the Wake of *Microsoft*, *IMS*, and *Deutsche Telekom*?", *CMLRev.* 1519 (2004), pp. 1525-1539.

¹⁰⁰⁸ For such claims, see Evans and Salinger, "Why Do Firms Bundle and Tie? Evidence from Competitive Markets and Implications for Tying Law", *Yale J. on Reg.* 37 (2005).

manner in which a product is marketed or designed, in the case of technical bundling. In fact, IP owners have the right to refuse to grant a licence, even if it is undertaking holding a dominant position.¹⁰⁰⁹ This is the essential nature of the IP right. An antitrust remedy to license would directly mitigate that right. It is therefore important to set a very high threshold. As Advocate General Maduro succinctly writes in *KPN*:

a duty under Article 82 EC for a dominant undertaking to aid its competitors should not be assumed *too lightly* and refusal to supply a competitor is not automatically considered abusive just because the inputs in question are necessary to compete on a secondary market. A balance should be kept between the interest in preserving or creating free competition in a particular market and the interest in not deterring investment and innovation by demanding that the fruits of commercial success be shared with competitors.¹⁰¹⁰

The case concerned a reference from the Dutch Administrative Court for Trade and Industry on an issue related to the liberalisation of the market for telecommunications services in the Netherlands. The dispute arose between the national provider of universal services and a small rival publisher of telephone directories. The liberalisation rules required KPN to supply essential subscriber information like name, address and telephone number to any third party requesting that information.¹⁰¹¹ The rival publisher had also requested additional information regarding subscribers' mobile phone numbers and profession.

The referring court asked whether KPN was obliged, under Article 82, to supply the rival with the requested additional data. The Advocate General believes it should. As a former monopolist KPN was previously shielded from competition, he stresses that potentially deterrent effect on investment and innovation due to compulsory licensing would be "minimal" and "likely to be outweighed by the interest in promoting competition."¹⁰¹²

¹⁰⁰⁹ Case C-418/01, *IMS Health v. NDC* [2004] ECR I-5039, noting that "[a]ccording to settled case-law, the exclusive right of reproduction forms part of the owner's right, so that the refusal of grant a licence, even if it is the act of an undertaking holding a dominant position, cannot in itself constitute an abuse of a dominant position" (at 34).

¹⁰¹⁰ See Advocate General Maduro, in Case C-109/03, *KPN Telecom BV v. OPTA*, opinion of 14 July 2004, not yet reported, at 39 (emphasis added).

¹⁰¹¹ See Article 6(3) of Directive 98/10 on the Application of Open Network Provision to Telephony and on Universal Service for Telecommunications in a Competitive Environment, [1998] OJ 1988 L101/24.

¹⁰¹² See Advocate General Maduro, in Case C-109/03, *KPN Telecom BV v. OPTA*, at 40.

7.5. The rule of reason test

As I already observed, there are two types of rules of reason tests: an unstructured and a structured one. The Commission appears to favour the unstructured test.

In *Microsoft*, it advanced a test similar to the Court of Appeals' test in *Microsoft III*.¹⁰¹³ In the US case, the challenged practice must have the potential to harm competition, not merely competitors. This means that the plaintiff has the burden of showing that the monopolist's conduct has the requisite anti-competitive effect. The monopolist may offer a pro-competitive justification for its practice. If the monopolist's justification stands un-rebutted, the plaintiff must then demonstrate that the anti-competitive harm of the practice outweighs the pro-competitive benefit. The Commission likewise assessed first the anti-competitive impact of the Windows-Media Player bundle. After considering that examination, it rejected Microsoft's efficiency claims, possibly off-setting the negative effects.

Contrary to Evans' contention that "[t]he debate now is where the law should settle between the modified per se legality and unstructured rule of reason," the reliance on the unstructured test, in my view, is to be rejected.¹⁰¹⁴ The test does not ultimately offer what the courts, authorities or business really need: operational and predictable rules. Commissioner Kroes recently stressed the importance of this point: "As an economist, I want an economically sound framework. But as an enforcer, I need a workable and operational for making enforcement decisions."¹⁰¹⁵

In my view, a case-by-case analysis directly weighing the positive and negative effects of a business practice does not give that guidance. By contrast, a structured rule examines the conduct under investigation through a series of screens that sort out the legal from illegal.¹⁰¹⁶ Perhaps there are two reasons why a structured test is superior. First, it gives an arguably good balance between the essential guidance and the preferred economically sound framework for a modernised Article 82 enforcement. Second, it makes sure that bundling analysis will not involve endless fact finding, as one might imagine from the exhaustive list of factors required under an unstructured test like under US law.¹⁰¹⁷

¹⁰¹³ *United States v. Microsoft*, 253 F.3d 34 (D.C. Cir. 2001), at 94.

¹⁰¹⁴ See Evans, "How Economists Can Help Courts Design Competition Rules: An EU and US Perspective", W.Comp. 93 (2005), p. 98.

¹⁰¹⁵ See Kroes, "Tackling Exclusionary Practices to Avoid Exploitation of market Power – Some Preliminary Thoughts on the Policy Review of Article 82", speech 05/537, 23 September 2005.

¹⁰¹⁶ For the application of a structured rule of reason to loyalty rebates, see Spector, "Loyalty Rebates: An Assessment of Competition Concerns and a Proposed Structured Rule of Reason", Comp. Pol'y Intern'l 89 (2005), pp. 108-114.

¹⁰¹⁷ *Chicago Board of Trade v. US*, 246 US 231 (1918), holding that courts must assess "whether the restraint imposed is such as may suppress or even destroy competition. To determine that question the court must ordinarily consider the facts

The structured inquiry is focused and structured around the specific theories of competitive harm and efficiency benefits that I discussed in Chapter 1. First, the rule supports some type of safe harbour clause, under which some types of bundling would be *per se* legal. It can be carried out in a now-proverbial “twinkling of an eye” if the defendant’s behaviour falls within the scope of the safe harbour rule.¹⁰¹⁸ To begin with, there is no need for antitrust intervention if there is no market power. In the case of market power, intervention is not necessary if the bundle concerns substitute or complementary goods unless the bundle of complementary goods concerns markets with strong network effects, or if there is significant foreclosure in the tied market.

Behaviour not covered by this safe harbour is assessed under a second filter addressing its possible anti-competitive impact. The Courts or Commission must state a logically consistent and plausible claim of significant antitrust injury. Bundling should be attacked if leveraging in the short or long term is likely to occur and, ultimately, harm consumers. Third, they must then evaluate the magnitude of possible pro-competitive explanations. In the absence of positive effects, the practice would be considered illegal. If there are positive effects, it is necessary to balance the anti-competitive impact and the pro-competitive explanations.

In the concluding chapter, I will sketch in more detail this structured rule of reason framework for Article 82 EC.

8. Conclusions

In this chapter, I assessed bundling under Articles 81 and 82 EC. Like in the US, there is a gradual erosion of the *per se* approach towards bundling. The Court’s and Commission’s practice in 70s and 80s regarding bundling can be called harsh. A form-based rule was adopted on assumptions about the harmfulness of leveraging, particularly with respect to exclusion. The Commission’s practice also suggests that the presence of market power was not a necessary requirement for successfully implementing bundling.

peculiar to the business to which the restraint is applied, its condition before and after the restraint was imposed, the nature of the restraint and its effect, actual or probable. The history of the restraint, the evil believed to exist, the reason for adopting the particular remedy, the purpose or end sought to be attained, are all relevant facts. This is not because a good intention will save an otherwise objectionable regulation or the reverse, but because knowledge of intent may help the court to interpret facts and to predict consequences” (at 238).

¹⁰¹⁸ The term comes from: *NCAA v. Board of Regents of the University of Oklahoma*, 468 US 85 (1984), 110, fn. 39.

Although the legal approach was still form-based and *per se*, there were significant modifications in the 90s. The market power requirement was taken more seriously and economics played a greater role in explaining and justifying bundling arrangements. This resulted in a two-faced approach that I described as a modified *per se* test. The recent decisions, with *Microsoft* as a leading example, tend toward an effect-based approach. The Commission appears to have somewhat recast the analytical framework in comparison with its previous cases. It can be said that the new approach comes close to an unstructured rule of reason test.

Essentially, the following specific observations can be made. First, after having discussed the advantages and disadvantages of the proposed single-factor tests, I suggest that the separability of products should be assessed under a multi-factor test. I appraised the multi-factor test by applying it to the facts of *Microsoft*.

Second, the forgoing proposed structured rule of reason remedies the flaws in the analysis applied thus far by the Community Courts and Commission. It is superior over the unstructured rule of reason test because of its increased guidance. In general, the structured test is better equipped to undertake full consideration of the harms and benefits to consumers which result from bundling. It would be a significant step forward to have this conclusion properly codified in the application of EC law.

Third, I suggest dropping bundling analysis under Article 81 EC. Although the analysis of Article 81 EC is more effects-based than under Article 82 EC, it may also be applied in cases lacking the necessary market power to pursue a feasible leveraging practice.

Fourth, a legal-economic assessment of *Hilti*, *Tetra Pak II* and *Microsoft* reveals that different conclusions than those reached by the Commission are also possible. I explain that Hilti's efforts are likely to have been pro-competitive. In my view, the Commission reached the right result in *Tetra Pak II*, but did not articulate the right reasons, namely leveraging in the long term. As for the decision in *Microsoft*, I believe that there are serious leveraging concerns in the long term on two markets. Microsoft has a clear interest in killing all innovation in the media player market in order to protect its position in the Windows market. By the Windows-WMP bundle, Microsoft also seeks to tip the market for encoding software to itself. Conversely, I am critical about the chosen remedy. In my view, a combined unbundling and mandatory versioning remedy would have been more suitable, given the characteristics of the market.



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CHAPTER 5

BUNDLING UNDER US AND EC MERGER CONTROL

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1. Introduction

The final part of this thesis concentrates on *ex ante* regulation of bundling. There is an increasing tendency to address bundling under the merger rules. Recently, the Commission has been concerned with the ability of merged entities to bundle products in order to leverage market power from the main market to a related market. The Commission approach has been recognised by the Community Courts.

This chapter aims to examine if and how the European merger control system can address this issue. I make two claims. The first is that merger control in the EU can *in principle* address strategic bundling. I attempt to summarise and criticise this bundling theory. My second claim is that it is advisable to block a

merger for bundling concerns only in very limited cases. My general suggestion is that Article 82 EC is, in most cases, sufficient to address bundling.

2. An outline of the merger rules in the US and EU

2.1. The merger control law in the US

The US merger control regime originated in efforts at the turn of the 20th century to use the Sherman Act to unwind combinations that had yielded dominant positions.¹⁰¹⁹ An example of this approach is the Supreme Court's decision in *Northern Securities*.¹⁰²⁰ The ruling, delivered in 1904, implied that mergers between rivals previously competing directly constituted a restraint of trade violating Sherman Act § 1, regardless of the purpose that motivated the merger.

After the Supreme Court declared in 1911 that the full-blown reasonableness inquiry applies to *all* questions under the Sherman Act, the reach of the Act with regards to mergers was seriously undermined.¹⁰²¹ Not surprisingly, business adapted their techniques of conducting business. As a result, the US saw its first great merger wave in the 1890's, after and perhaps due to the Sherman Act.

Congress reacted soon. In 1914, it adopted the Clayton Act. The Act prohibited a number of specific business practices, including anti-competitive acquisitions. The merger provision, Clayton Act § 7, prohibited the acquisition of the "stock or other share capital of another corporation [...] where the effect of such acquisition *may be* to substantially lessen competition *between* the corporation whose stock is so acquired and the corporation making the acquisition." By using the words 'may be,' Congress appears to indicate that it wanted to stop even *potentially* anti-competitive transactions. Remarkably, the merger control provision of 1914 applied only to acquisitions of stock.¹⁰²² Undertakings soon realised that they could easily evade the prohibition of § 7. Merging parties made sure that the more lenient Sherman Act applied to their transaction by acquiring another firm through the purchase of its assets.

¹⁰¹⁹ See Stigler, "Monopoly and Oligopoly by Merger", Am. Ec. Rev. 23 (1950), p. 27. For reference work, see Gifford and Kaplan, *Federal Antitrust Law: Cases and Materials* (Cincinnati, 2002), pp. 461-572.

¹⁰²⁰ *Northern Securities*, 193 US 197 (1904).

¹⁰²¹ *Standard Oil v. United States*, 221 US 1 (1911).

¹⁰²² There were also serious procedural restrictions. In *Thatcher Mfg. Co. v. FTC*, 272 US 554 (1926), the Supreme Court held that the FTC could not restrict the transfer of assets following a stock acquisition when the transfer occurred before filing of the FTC's complaint.

Given that the Act only prohibited mergers on the verge of obtaining substantial monopoly power, the antitrust laws hardly arrested mergers as the 20s drew to a close.¹⁰²³

In 1950, Congress established the foundation for modern merger control by adopting the Celler-Kefauver Act. This new Act amended Clayton Act § 7 by closing the assets loophole. The 1950 amendment did not specify what level of market concentration or other industry characteristics indicate that a transaction's effect would substantially lessen competition. Nonetheless, the legislative debates preceding adoption of the measure made clear that Congress expected § 7 to be used to ban mergers where the parties' post-acquisition market shares fell well below the thresholds identified under the Sherman Act by the case law.¹⁰²⁴

2.2. The European merger control system

The EC Treaty contains no specific provisions concerning the control of mergers.¹⁰²⁵ This legislative gap was meant to promote European industry. In a memorandum published in 1965, the Commission noted that mergers would strengthen European companies that were considered to be too weak to compete in international markets.¹⁰²⁶ The document also communicated the Commission's intention of controlling anti-competitive mergers by applying Article 82 EC rather than Article 81 EC.

Already in 1966, the Commission recognised that both provisions were a far from efficient tool to control merger operations.¹⁰²⁷ Yet, it was not until 1989 that the Council adopted a Community merger regulation.¹⁰²⁸ In the meantime, the Commission challenged a number of merger cases under Article 82 EC. It interpreted that provision liberally, preventing, for instance, a dominant undertaking from acquiring of a direct competitor.¹⁰²⁹ Of course, the use of Article 82 EC is limited by the fact that the acquiring undertaking must have a dominant position before the provision can apply. It does not apply where two

¹⁰²³ *United States v. United Steel Corp.*, 251 US 417 (1920), finding that the consolidation of most of the industry into one firm possessing 80 to 90 percent of the market did not violate the Sherman Act.

¹⁰²⁴ For details, see *The Merger Movement: A Summary Report* (FTC, 1948).

¹⁰²⁵ Unlike Article 66 (7) of the ECSC Treaty. For details, see *Communication from the Commission concerning Aspects of the Treatment of Competition Cases Resulting from the Expiry of the ECSC Treaty*, [2002] OJ C 152/5. The ECSC Treaty expired on 23 July 2002.

¹⁰²⁶ See 1956 *Memorandum on the Concentration of Enterprises in the Common Market*.

¹⁰²⁷ See *Memorandum on the Problem of Mergers in the Common Market*, Competition Series Study No. 3, [1966] 26 CMLR, pp. 2-3.

¹⁰²⁸ See Regulation 4064/89 on the Control of Concentrations between Undertakings, [1989] OJ L 395/1. For details, see Overbury, "Politics or Policy? The Demystification of EC Merger Control", *Fordham Corp. L. Inst.* 561 (1992); and, Bechtold, "Die Grundzüge der Neuen EWG-Fusionskontrolle", *RIW* 253 (1990).

¹⁰²⁹ Case 6/72, *Continental Can v. Commission* [1973] ECR 215, noting that "[a]buse may therefore occur if an undertaking in a dominant position strengthens such a position in such a way that the degree of dominance reached substantially fetters competition, i.e. that only undertakings remain in the market whose behaviour depends on the dominant one" (at 26).

companies merge in order to create a dominant firm,¹⁰³⁰ nor does it apply where a dominant company is acquired by a non-dominant firm.¹⁰³¹

If a merger operation constitutes a concentration and is of a Community dimension, the Commission will appraise it based on the Merger Regulation.¹⁰³² The substantive part of the Regulation is provided in Article 2. Under the Regulation of 1989, that provision pivots on whether or not the merger creates or strengthens, therefore impeding effective competition in the common market.¹⁰³³ The concept of dominance referred to here is identical to that within the meaning of Article 82 EC.¹⁰³⁴

In 2004, the substantive test has been reworded.¹⁰³⁵ Now, the amended Regulation of 2004 applies the Significant Impediment of Effective Competition ("SIEC") test when scrutinising a merger proposal. Under this test, the Commission can block a merger when it "significantly impede[s] effective competition in the common market."¹⁰³⁶

3. The bundling analysis under US law

3.1. The early case law

In the early years, courts paid no attention to bundling. Conglomerate mergers that can typically raise bundling concerns were even excluded from antitrust scrutiny.¹⁰³⁷

In *Winslow*, the Supreme Court made it clear that the Sherman Act did not apply to conglomerate mergers.¹⁰³⁸ The case involved a merger between various manufacturers of different types of shoe making machines into United Shoe Machinery Corporation. One of the merging parties made lasting

¹⁰³⁰ Case T-102/96, *Gencor Ltd. v. Commission* [1999] ECR II-753, noting that "only the strengthening of dominant positions and not their creation can be controlled under Art. [82] of the Treaty" (at 155).

¹⁰³¹ See Cook and Kerse, *EC Merger Control* (London, 2000), p. 129.

¹⁰³² For details on the terms 'concentration' and 'Community dimension' as well as procedural aspects, see Ritter *et al.*, *European Competition Law: A Practitioner's Guide* (The Hague, 2000), pp. 415-529.

¹⁰³³ See Articles 2(2) and 2(3) of Regulation 4064/89.

¹⁰³⁴ See Whish, *Competition Law* (London, 2003), p. 770.

¹⁰³⁵ For a review of the reform, see Schmidt, "The New ECMR: Significant Impediment or Significant Improvement", CMLRev. 1555 (2004); González Díaz, "The Reform of European Merger Control: Quid Novi Sub Sole?", W.Comp. 177 (2004); and, Levy, "EU Merger Control: From Birth to Adolescence", W.Comp. 195 (2003).

¹⁰³⁶ See Regulation 139/2004 on the Control of Concentrations between Undertakings, [2004] L 24/1.

¹⁰³⁷ Conglomerate mergers can be divided into three categories: product extension mergers, in which a producer of one product acquires the producer of a closely related product; geographic or market extension mergers, in which a producer in one market acquires a similar company in an adjacent market and pure conglomerate mergers, in which there is neither relationship between the parties. For details, see Burnley, "Who's Afraid of Conglomerate Mergers? A Comparison of the US and EC Approaches?", W.Comp. 43 (2005), pp. 44-45.

¹⁰³⁸ *United States v. Sidney Winslow*, 227 US 202 (1913).

machines, another party produced welt-sewing machines and a third one made outsole-stitching machines. Notably, these products were complementary, not competing. Writing for the majority, Judge Holmes concluded therefore that no competition was eliminated among the merging firms. As he observed: "[i]t is as lawful for one corporation to make every part of a steam engine and to put the machine together as it would be for one to make boilers and another to make the wheels."¹⁰³⁹

In contrast, strategic bundling appears to have been one of reasons for adopting the Clayton Act in 1914. When passing the Act, Congress considered that bundling is "one of the greatest agencies and instrumentalists of monopoly ever devised by the brain of man. It completely shuts out competitors, not only from trade in which they are already engaged, but from the opportunities to build up trade in any community where these great and powerful combinations are operating under this system and practice."¹⁰⁴⁰

Nonetheless, it did not play a role in merger control enforcement in those days. Before the amendment of Clayton Act § 7, it was generally assumed that the statute only covered horizontal mergers. As Judge Burton wrote in his dissent in *Du Pont de Nemours*, "[a]lthough the language of the Act is ambiguous, the relevant legislative history, administrative practice, and judicial interpretation support the conclusion that 7 does *not* apply to vertical acquisitions."¹⁰⁴¹ The general argument was that the word 'between' in § 7 only suggests a concern with horizontal mergers.¹⁰⁴²

When Congress amended that provision in 1950, one of its main purposes was to make the law clearly applicable to "all types of mergers and acquisitions, vertical and conglomerate as well as horizontal, which have the specified effects of substantially lessening competition."¹⁰⁴³ The inclusion of conglomerate mergers thus opened the way for antitrust analysis of strategic bundling under the merger rules.

¹⁰³⁹ *United States v. Sidney Winslow*, at 217-218.

¹⁰⁴⁰ See H.R. Rep. No. 627, 63d Cong., 2d Sess. 13 (1914), pp. 12-13.

¹⁰⁴¹ *United States v. E.I. du Pont de Nemours*, 353 US 586 (1957), at 613 (emphasis added).

¹⁰⁴² See Turner, "Conglomerate Mergers and Section 7 of The Clayton Act", Harv. L. Rev. 1313 (1965), p. 1314. For a different view, see Brodley, "Potential Competition Mergers: a Structural Synthesis", Yale L. J. 1 (1977), pp. 43-44.

¹⁰⁴³ See H.R. Rep. No. 1191, 81st Cong., 1st Sess. 11 (1949), p.11 (emphasis added).

3.2. The entrenchment theory of the 70s

The first years after the adoption of the 1950 amendment were the heyday of the traditional approach to antitrust law.¹⁰⁴⁴ Essentially, merger enforcement was supposed to focus on preventing the creation of an industry structure conducive to anti-competitive effects. Scholars took the view that high market concentration as such would cause economic harm. They argued that it was therefore necessary to block such concentration in its incipency.¹⁰⁴⁵

The amended § 7 was accordingly interpreted in *Brown Shoe*.¹⁰⁴⁶ The case involved the horizontal acquisition of Kenney by Brown Shoe and Kinney. At the time of the merger, the manufacturing and retail shoe markets were not concentrated. In fact, Brown Shoe was the fourth largest US manufacturer of shoes with a market share of 4 percent, while Kinney was the 8th largest retailer in the market for shoe distribution. Judge Warren's majority opinion stressed the important role Clayton Act § 7 played in stopping a trend toward concentration *in its incipency*.¹⁰⁴⁷

The ruling expressed serious concern over the merger trend in the shoe-manufacturing and retailing industries. Judge Warren noted that Congress "feared accelerated concentration of economic power on economic grounds, but also for the threat to other values a trend toward concentration was thought to pose."¹⁰⁴⁸ He stressed that "[i]f a merger achieving 5 % control would now be approved, we might be required to approve future merger efforts by Brown's competitors seeking similar market shares. The oligopoly Congress sought to avoid would then be furthered and it would be difficult to absolve the combinations previously approved."¹⁰⁴⁹ Ultimately, the Supreme Court prohibited the merger.

Under this Structuralist influence, bundling concerns began to play a theoretical role in the mid 60s and 70s with regards to conglomerate mergers. From 1965 to 1975, the US experienced a wave of such mergers. When this wave arose, antitrust enforcers and scholars were uncertain about the likely competitive effects of these mergers.¹⁰⁵⁰ There was considerable political concern about a "rising tide of

¹⁰⁴⁴ Antitrust economics may be divided into roughly three development periods: 'Classical', 'Chicago School', 'post-Chicago.' See Baker, "A Preface to Post-Chicago Antitrust", in: Cucinotta and Pardolesi et al. (eds.), *Post-Chicago Developments in Antitrust Law* (Cheltenham, 2002), p. 60.

¹⁰⁴⁵ For extensive discussion, see Van den Bergh and Camesasca, *European Competition Law and Economics - A Comparative Perspective* (Antwerp, 2001), pp. 23-32.

¹⁰⁴⁶ *Brown v. United States* 370 US 294 (1962). For similar approach, see *United States v. Philadelphia National Bank*, 374 US 321 (1963); and, *Von's Grocery v. United States* 384 US 270 (1966)

¹⁰⁴⁷ *Brown v. United States*, at 332, 343-346.

¹⁰⁴⁸ *Brown v. United States*, at 317.

¹⁰⁴⁹ *Brown v. United States*, at 345.

¹⁰⁵⁰ See Bok, "Section 7 of the Clayton Act and the Merging of Law and Economics", Harv. L. Rev. 307 (1960), pp. 310-313.

concentration" resulting from them.¹⁰⁵¹ In response, antitrust agencies challenged a number of conglomerate mergers under a variety of theories.

The most prominent theory was the entrenchment theory embraced by the Supreme Court in *Procter & Gamble*.¹⁰⁵² Under this theory, mergers could be condemned if they strengthened an already dominant undertaking through greater efficiencies, or gave it access to a *broad line of products* or greater financial resources, thereby making life harder for smaller rivals.¹⁰⁵³ Bundling was one of the concerns attacked under this theory. Having a broad product line can supposedly provide increased opportunity for strategic bundling.

Procter & Gamble involved the leading manufacturer of household products like soaps and detergents. Procter and Gamble ("P&G") wanted to acquire Clorox, which manufactured liquid bleach, a product that P&G did not hold. The Supreme Court held that the size, advertising budget and distribution network of P&G would intimidate existing market rivals and discourage further market entry. In other words, the leading position of Clorox would become *entrenched* after the merger. The Court agreed with the FTC's analysis that the acquisition might substantially lessen competition in part because "the substitution of the powerful acquiring firm for the smaller, but already dominant, firm may substantially reduce the competitive structure of the industry by raising entry barriers and by dissuading the smaller firms from aggressively competing."¹⁰⁵⁴ In this regard, the Court focused on the importance of advertising as "the major competitive weapon" in the bleach market.¹⁰⁵⁵ It stressed that that P&G had a larger budget than Clorox and could use it to defeat "the short term threat of a new entrant."¹⁰⁵⁶

The ruling in *Procter & Gamble* led to a number of other cases invoking the entrenchment theory. However, bundling concerns do not seem to have been a major objection in those cases. In *General Foods*, for instance, the Court of Appeals upheld unlawful General Food's acquisition of SOS, one of the

¹⁰⁵¹ See OECD, *Portfolio Effects in Conglomerate Mergers*, 24 January 2002, www.oecd.org/dataoecd/39/3/1818237.pdf, p. 215.

¹⁰⁵² *FTC v. Procter & Gamble*, 386 US 568 (1967). Other theories that do not relate to bundling are not discussed. It concerns the potential competition theory and the reciprocity theory. For more on this categorisation, see Bauer, "Government Enforcement Policy of Section 7 of the Clayton Act: Carte Blanche for Conglomerate Mergers?", *Cal. L. Rev.* 348 (1983), pp. 353-354. For details on these theories, see Hylton, *Antitrust Law – Economic Theory and Common Law Evolution* (Cambridge, 2003), pp. 244-251.

¹⁰⁵³ On this theory, see Sullivan and Grimes, *The Law of Antitrust: An Integrated handbook* (St. Paul, 2000), p. 624; and Hellman, "Entrenchment Under Section 7 of the Clayton Act: An Approach for Analyzing Conglomerate Mergers", *Loy. U. Chi. L. J.* 225 (1982).

¹⁰⁵⁴ *FTC v. Procter & Gamble*, at 578.

¹⁰⁵⁵ *FTC v. Procter & Gamble*, at 579.

¹⁰⁵⁶ *FTC v. Procter & Gamble*, at 579.

two leading makers of steel wool soap pads.¹⁰⁵⁷ It held that the merger "has raised to virtually insurmountable heights entry barriers which were already high, changed the steel wool pad market [from] two substantially equal-sized companies and several smaller firms to one in which SOS is now dominant, and that the substitution of General Foods for SOS will paralyse any incentive to compete which might otherwise have existed."¹⁰⁵⁸

In *Wilson Sporting Goods*, Wilson, the leading seller of sporting goods, sought to acquire Nissan, the leading seller of gymnastic equipment.¹⁰⁵⁹ Unlike *Proctor & Gamble*, mass advertising played no significant role in the sale of gymnastic equipment. Nonetheless, the lower court was concerned that Nissan might obtain significant marketing advantages because of Wilson's influence over a large number of dealers who depended upon it for credit and other forms of cooperation and assistance.

In 1968, the DoJ introduced the Merger Guidelines.¹⁰⁶⁰ The Guidelines were unequivocal in their focus on controlling market structure.¹⁰⁶¹ The Guidelines pointed out that the possible entrenchment of a firm in an already concentrated market might raise antitrust concerns.¹⁰⁶² While the DoJ admitted its lack of experience with the entrenchment theory and stated its unwillingness to specify the kinds of mergers that might trigger a veto, it demonstrated its concern for this potential anti-competitive effect.

The Guidelines provided three examples: (1) a merger which produces a very large disparity in absolute size between the merged firm and the largest remaining firms in the relevant markets; (2) a merger of firms producing related products which may induce purchasers, concerned about the merged firm's possible use of leverage, to buy products of the merged firm rather than those of competitors; and (3) a merger, which may enhance the ability of the merged firm to increase product differentiation in the relevant markets.¹⁰⁶³ The second example relates to bundling, but was not specified.

¹⁰⁵⁷ *General Foods v. FTC*, 386 F.2d 936 (3d Cir. 1967).

¹⁰⁵⁸ *General Foods v. FTC*, at 943-946.

¹⁰⁵⁹ *United States v. Wilson Sporting Goods Co.*, 288 F Supp 543 (N.D. Ill. 1968).

¹⁰⁶⁰ See US Department of Justice and Federal Trade Commission, Merger Guidelines, 33 Fed. Reg. 23442 (1968). For details on the history of these guidelines, see Gifford and Kaplan, *op. cit.*, pp. 553-572.

¹⁰⁶¹ See 1968 Merger Guidelines, stating that "the purpose of the Department's enforcement activity regarding conglomerate mergers is to prevent changes in market structure that appear likely over the course of time to cause a substantial lessening of the competition that would otherwise exist or to create a tendency toward monopoly" (at 17).

¹⁰⁶² See 1968 Merger Guidelines, at 20.

¹⁰⁶³ See 1968 Merger Guidelines, at 20.

The Guidelines proved to be far less effective than one might have been hoped. Very few courts cited them, much less adopted them.¹⁰⁶⁴ Although the entrenchment doctrine was frequently applied, bundling concerns do not appear to have been considered. For instance, in *Kennecott Copper*, the Court upheld FTC's conclusion that the acquisition of Peabody Coal by Kennecott would violate Clayton Act § 7 in part because "Kennecott's deep pocket operating on a market which, though a loose oligopoly, is growing more concentrated" created a "likelihood of diminishing competition."¹⁰⁶⁵

In sum, bundling concerns were, at least in theory, accepted reasons to prohibit a merger

3.3. The decline of the bundling analysis in the 80s

The enforcement approach of the 70s stimulated a critical examination of the entrenchment theory by legal and economic scholars.

For instance, Bork notes that none of the theories applied bear analysis.¹⁰⁶⁶ He observes that the effects of a conglomerate merger are generally "manifestations of efficiency, and hence reasons to welcome the merger rather than condemn it."¹⁰⁶⁷ Comparably critical, Areeda and Turner focus on the alleged strategic effect of having a wider product line. They argue that "apart from the leverage possibility, there is unlikely to be any prejudice to rivals at all, for they too can usually arrange packages or one-stop service when buyers demand them. And if they cannot, then the merged firm's provision of those new services valued by customers is *not a social evil* but a contribution to their welfare."¹⁰⁶⁸ With respect to leveraging, they express "serious doubt that very substantial foreclosure would often come about via tying that is too vague to catch the eye or to be proved."¹⁰⁶⁹ Ultimately, the Chicago influence thoroughly discredited the entrenchment theory in academic circles in the 80s.

The courts and government agencies soon shared that view. Although the Supreme Court has never had the occasion to revisit *Proctor & Gamble*, in the late 70s lower courts began rejecting entrenchment

¹⁰⁶⁴ *Fruehauf Corp. v. FTC*, 603 F.2d 345 (2d Cir. 1979), noting that "[t]he guidelines do not establish the illegality of a merger which does fit the criteria used by the Justice Department [...] The Guidelines, therefore, simply reflect the considered view of the Justice Department as to which mergers are most likely to create a reasonable probability of substantially lessening competition and which may therefore warrant the institution of legal action [...] the Commission still bears the burden of showing the likelihood that the future effect of [the merger] may be substantially to lessen competition" (at 353-354).

¹⁰⁶⁵ *Kennecott Copper Corp. v. FTC*, 467 F.2d 67 (10th Cir. 1972), at 70.

¹⁰⁶⁶ See Bork, *The Antitrust Paradox* (New York, 1978), pp. 252-257.

¹⁰⁶⁷ See Bork, *op. cit.*, p. 255.

¹⁰⁶⁸ See Areeda and Turner, *Antitrust Law* (Boston, 1980), 1109d, at 36 (emphasis added).

¹⁰⁶⁹ See Areeda and Turner, *op. cit.*, 1134, at 208.

claims on the grounds that the plaintiff had not proven that entrenchment was likely.¹⁰⁷⁰ In 1982, the DoJ eliminated entrenchment on the basis for challenging mergers when the new merger guidelines were issued.¹⁰⁷¹ The main reason for its change was that it recognised that efficiency and aggressive competition benefit consumers even if rivals failing to offer an equally good deal suffer losses or market share. The DoJ eliminated conglomerate mergers as a separate category of analysis. Instead, it considered "horizontal effect from non-horizontal mergers."¹⁰⁷²

Under the 1982 Guidelines, non-horizontal mergers are mergers between firms that do not operate in the same market and producing no immediate change in the level of concentration in any relevant market. This embraces both vertical and conglomerate mergers. With regards to conglomerate mergers, the Guidelines were only concerned with the elimination of specific potential entrants: "in some circumstances, the non-horizontal merger of a firm already in a market [...] with a potential entrant to that market [...] may adversely affect competition in the market."¹⁰⁷³ Under the 1982 Guidelines and, later the 1984 Guidelines¹⁰⁷⁴ and the 1992 Guidelines¹⁰⁷⁵, conglomerate mergers were therefore no longer isolated as a specific type of merger with a specific kind of effect on competition.¹⁰⁷⁶ All non-horizontal mergers, whether conglomerate or vertical, were to be assessed in the same way.

For our purpose, such assessment no longer incorporated the entrenchment theory previously endorsed by the DoJ. Instead, it involves considering whether a merger raises competition concerns if it involves the acquisition of a firm with a strong market position by a potential entrant to the market.

Today, conglomerate mergers in the US are not generally regarded as the competitive threat perceived in the 70s.¹⁰⁷⁷ Clayton Act § 7 forbids only those mergers that are "likely to hurt consumers."¹⁰⁷⁸ Rather than being a reason for condemning a merger, significant efficiencies benefiting consumers are relevant to "the acquisition's overall effect on competition" because they may justify an otherwise anti-competitive

¹⁰⁷⁰ The entrenchment theory was rejected for that reason in: *Emhart Corp. v. USM Corp.*, 527 F.2d 177 (1st Cir. 1975); *Missouri Portland Cement Co. v. Cargill, Inc.*, 498 F.2d 851 (2^d Cir. 1974); *Heublein, Inc.*, 96 FTC. 385 (1980); and, *Beatrice Foods*, 101 FTC. 733 (1983).

¹⁰⁷¹ See US Department of Justice and Federal Trade Commission, Merger Guidelines, 47 Fed. Reg. 28493 (1982).

¹⁰⁷² See 1982 Guidelines, p. 20.

¹⁰⁷³ See 1982 Guidelines, p. 21.

¹⁰⁷⁴ See US Department of Justice and Federal Trade Commission, Merger Guidelines, 14 June 1984.

¹⁰⁷⁵ See US Department of Justice and Federal Trade Commission, Merger Guidelines, 4 Fed. Reg. 13104 (1992).

¹⁰⁷⁶ Recently, US agencies have begun to classify mergers of potential competitors likewise as horizontal mergers and accordingly scrutinise them under the horizontal merger guidelines. See *United States v. SBC Communications*, 99-0715 (TPJ) (D.D.C., 23 March 1999), www.usdoj.gov/at/cases/f2500/2572.htm.

¹⁰⁷⁷ The high point of the conglomeracy wave was 1975, but since that time large firms have shown a general tendency to strip themselves of truly unrelated product lines focusing on their core business. See Scherer and Ross, *Industrial Market Structure and Economic Performance* (Boston, 1999), pp. 90-91.

¹⁰⁷⁸ *United States v. Rockford, Inc.*, 898 F.2d 1278 (7th Cir. 1990), at 1282.

merger.¹⁰⁷⁹ In other words, a merger that would not hurt rivals but otherwise benefit consumers will not violate § 7.

3.4. Interim conclusions

Bundling concerns have not been given much credence under US merger law. In the early years, conglomerate mergers were not even scrutinised, as they were excluded from the ambit of the merger rules. After a short period of attention for bundling under the entrenchment theory in the 70s, entrenchment was dropped by the US antitrust authorities in 1982. Today, bundling is not really a concern under US merger law.

4. The evolution of the bundling theory under EC law

4.1. The early statements and cases on bundling

When the Merger Regulation was freshly adopted in 1989, the Commission communicated not to worry about bundling or tying under the merger rules. Having commissioned a study evaluating the effect of conglomerate mergers on competition, it pointed out that those mergers could lead to decisive advantages for the new entity due to its deep pockets and the reduction of potential competition. It observed the following:

[c]onglomerates can, more readily than other enterprises, adopt predatory strategies by using their financial reserves to eliminate competitors from some of their sectors of activity. Even if a firm does not utilize such a strategy, the fact that it has the necessary means can be enough to discipline smaller competitors. More important, however, is the anti-competitive effect arising from mutual forbearance: when conglomerate firms have an overlapping presence in a range of markets, they may be reluctant to compete against each other.¹⁰⁸⁰

Continuing to stress the financial strength involved in conglomeracy, two years later, the Commission identified bundling as a separate concern for the first time. In 1991, it articulated:

the concern in conglomerate mergers is the possible strengthening of an already strong or dominant position by a combination of financial resources and other capacities or by the creation of a *system-selling approach for complementary products* [...] this concern does not exist if there are other financially strong competitors on the market or if the *system-selling approach* is not practicable because the market position of the company concerned is not strong enough

¹⁰⁷⁹ *FTC v. Univ. Health, Inc.*, 938 F.2d 1206 (11th Cir. 1991), at 1222.

¹⁰⁸⁰ See Commission, 19th Report on Competition Policy (1989), p. 228.

(customers can turn to alternative suppliers) or because *combined sales* are only an insignificant part of the market.¹⁰⁸¹

The Commission appears, among other things, to focus on so-called system-selling effects. If the new undertaking bundles complementary products, this might result in an anti-competitive outcome. Unfortunately, the Commission did not explain how that possible anti-competitive effect was achieved. In its subsequent practice, the bundling theory was elucidated.

The first merger decision to consider bundling was *ATR/Havilland*.¹⁰⁸² This case of 1991 involved the merger between ATR and De Havilland. ATR was jointly owned by the leading manufacturers of regional aircrafts in the world, Aerospatiale and Alenia. As a result of the merger, Aerospatiale and Alenia would acquire the number two manufacturer of regional aircrafts.

The Commission's decision identified three separate but related segments in the market for commuter aircrafts: small commuters with 20-39 seats, medium-size commuters with 40-59 seats, and large commuters with more than 60 but less than 70 seats. As for bundling, the Commission stressed that the merged entity would have obtained "coverage of the whole range of commuter aircraft."¹⁰⁸³ Essentially, it worried about mixed bundling. The Commission was convinced that the new company would take advantage of its market power in the market for large commuter aircraft to sell its aircrafts in the slightly more competitive market for medium-size commuter aircraft. It was feared that the new group would "give rise to the ability [...] of offering favourable conditions for a specific type of aircraft in mixed deals."¹⁰⁸⁴

By concluding that the new company would enjoy a "significant advantage" that could lead to foreclosure of its actual and potential competitors, the Commission considered two characteristics in particular.¹⁰⁸⁵ First, it observed that the merged entity would have been the only manufacturer of commuter aircrafts that would be active in all market segments identified.

Second, the decision emphasised that purchasing an aircraft involves fixed costs like training personnel, the problem of dealing with different aircraft manufacturers, and necessity of different in-house

¹⁰⁸¹ See Commission, 21st Report on Competition Policy (1991), p. 369 (emphasis added).

¹⁰⁸² Case IV/M.53, *ATR/Havilland* [1991] OJ C 334/7.

¹⁰⁸³ Case IV/M.53, *ATR/Havilland*, at 27.

¹⁰⁸⁴ Case IV/M.53, *ATR/Havilland*, at 30.

¹⁰⁸⁵ Case IV/M.53, *ATR/Havilland*, at 32.

inventories for spare parts. Customers would therefore be inclined to purchase their aircrafts from the same manufacturer. As the Commission noted:

Thus, a significant regional carrier whose aircraft needs may call for a full complement of aircraft capacities to meet the route needs of that carrier might be dissuaded from purchasing smaller aircraft from a single manufacturer if the needs of the carrier for a larger aircraft could also be met from the same aircraft manufacturer.¹⁰⁸⁶

In my view, the Commission correctly focused on the foreclosure effects. Even where the merged entity can be expected to succeed in forcing the market exit of a sufficient number of rivals, foreclosure analysis cannot stop at this point. As the Commission itself recognised in *ATR/Havilland*, the substantive test of Article 2(3) provides that a transactions can be blocked only if a certain stability of the dominant position over time will be achieved.¹⁰⁸⁷

This requires an assessment of the improbability of re-entry.¹⁰⁸⁸ In its decision, the Commission did not scrutinise this aspect of the merger. Although the Commission stressed the possible consumption-side efficiencies, they were not considered as such. To the contrary, these efficiencies appear to be an issue of concern.

In the same year, the Commission focused in *Tetra Pak/Alfa-Laval* on concerns besides bundling, notwithstanding its close resemblance with the facts of *ATR/Havilland*.¹⁰⁸⁹ The case involved the merger between two suppliers of complementary goods. Alfa-Laval produces cartons used for processing milk and juice, whereas Tetra Pak supplies the machines used to package the liquids. Like in *ATR/Havilland*, the Commission stressed that the new group would be able to "offer a fuller product range [...] covering all machines used by dairy/juice producers."¹⁰⁹⁰

It went on to investigate whether the integration of a carton supplier could confer upon Tetra Pak "certain marketing or other advantages over non-integrated aseptic carton packaging machine suppliers that would be likely to limit growth by existing competitors or raise barriers to entry for potential competitors."¹⁰⁹¹ Notably, the machines were distinct in both technical and commercial terms.

¹⁰⁸⁶ Case IV/M.53, *ATR/Havilland*, at 32.

¹⁰⁸⁷ Case IV/M.53, *ATR/Havilland*, at 35.

¹⁰⁸⁸ See Völcker, "Leveraging as a Theory of Competitive Harm in EU Merger Control", CMLRev. 581 (2003), p. 605.

¹⁰⁸⁹ Case IV/M.68, *Tetra Pak/Alfa-Laval* [1991] OJ L 290/35

¹⁰⁹⁰ Case IV/M.68, *Tetra Pak/Alfa-Laval*, at A.

¹⁰⁹¹ Case IV/M.68, *Tetra Pak/Alfa-Laval*, at B4.

The Commission also stressed that less than 5 percent of packaging machine purchases occurred simultaneously with processing machine purchases over the preceding three years. This would reduce "to almost insignificance any potential advantage available to Tetra Pak as a result of the concentration."¹⁰⁹² Moreover, customers seem to have ranked the ability of a supplier to offer both packaging and processing machines as not important. In combination with the presence of strong competitors on the markets for processing machines, the Commission considered this sufficient to conclude that Tetra Pak would not gain any anti-competitive advantage.

4.2. The incoherent approach of the 90s

Merger investigations in the 90s have frequently (and sometimes expressly) focused on bundling, although not in a coherent way.¹⁰⁹³ The Commission has investigated strategic bundling with regards to vertical mergers in the media and telecommunications sector and with regards to conglomerate mergers in the retailing sector. These categories of cases therefore feature a number of blocked mergers.

As for vertical mergers, the risk of post-merger bundling was considered in *MSG Media Service*.¹⁰⁹⁴ The case concerned the proposed joint venture between Bertelsmann, Kirch and Deutsche Telekom. The parties wanted to set up an alliance under the name MSG for the provision of technical infrastructure for pay-TV. Bertelsmann was the leading media group and book and music publisher in Germany. Kirch's activities included the supply of TV programmes and feature films. Deutsche Telekom was the incumbent telecom operator in Germany and supplied the essential technical infrastructure for the operation.

The decision identified four markets: the market for analogue pay-TV, the market for digital pay-TV, the market for cable TV networks, and the future market for digital infrastructure for pay-TV. One of the concerns brought forward was that the parent companies would leverage their market power in the analogue pay-TV market by programme packages into the market for digital pay-TV. The Commission stressed MSG's power to "offer program suppliers a comprehensive service covering all the technical prerequisites for pay-TV," given the parents' combined resources.¹⁰⁹⁵ Bertelsmann and Kirch could

¹⁰⁹² Case IV/M.68, *Tetra Pak/Alfa-Laval*, at B4.

¹⁰⁹³ For the same recognition in the literature, see Lindsay, *EC Merger Regulation: Substantive Issues* (London, 2002), p. 391-392; and, Evans and Padilla, "Demand-side Efficiencies in Merger Control", *W.Comp.* 167 (2003), p. 185.

¹⁰⁹⁴ Case IV/M.469, *MSG Media Service* [1994] OJ L 364/1.

¹⁰⁹⁵ Case IV/M.469, *MSG Media Service*, at 70.

"allow different programme packages to be put together that are tailored to the requirements of specific target groups and can be offered at an attractive subscription price" that rivals could not match.¹⁰⁹⁶

Essentially, the likelihood of leveraging was assessed by the following factors. Firstly, the Commission stressed that Bertelsmann and Kirch already had a subscriber base that they could use in the future digital pay-TV.¹⁰⁹⁷ This base significantly reduced their risk of investing in digital TV. A second factor was the parties' preferential access to potential distribution channels. Bertelsmann is the leading book operator in Germany. At the time of the merger, it had 6 million book-club members and was experienced in the customer management of 22 million members worldwide.¹⁰⁹⁸ This potential distribution channel would add to the security of the customer base of MSG. A final factor relates to parties' preferential access to programme content. Notably, Kirch was the leading German supplier of feature films and entertainment programmes for TV.¹⁰⁹⁹ It also jointly controlled a leading agency for sports broadcast rights and had access to attractive sports rights and film production activities.

The ability to leverage would be enhanced by the digitisation of pay-TV infrastructure:

Experience in other countries where pay-TV is at a more advanced stage reveals that bringing together of individual programmes to form programme packages is a key factor in achieving success on the pay-TV market. Pay-TV suppliers occupying a less important position on the market may be forced to include their programmes in the leading pay-TV supplier's packages, thus giving it control over its competitors.¹¹⁰⁰

Remarkably, the Commission did not consider the potential efficiencies that the joint venture might produce by integrating programme packages. It was stressed that efficiency considerations were only valid if "no obstacle is formed to competition."¹¹⁰¹ In any event, it was "extremely doubtful" whether efficiencies would materialise because of MSG's ability to deter entry from suppliers of pay-TV.¹¹⁰²

In *RTL/Veronica/Endemol*, the Commission was troubled by the establishment of Holland Media Groep (HMG), a company supplying TV programmes in the Netherlands.¹¹⁰³ HMG was set up by a leading Dutch TV Broadcaster (RTL), a former Dutch public broadcasting association (Veronica), and a major independent programme maker (Endemol). Bundling concerns seem to have played a two-levelled role.

¹⁰⁹⁶ Case IV/M.469, *MSG Media Service*, at 77.

¹⁰⁹⁷ Case IV/M.469, *MSG Media Service*, at 62.

¹⁰⁹⁸ Case IV/M.469, *MSG Media Service*, at 64.

¹⁰⁹⁹ Case IV/M.469, *MSG Media Service*, at 76.

¹¹⁰⁰ Case IV/M.469, *MSG Media Service*, at 78.

¹¹⁰¹ Case IV/M.469, *MSG Media Service*, at 100.

¹¹⁰² Case IV/M.469, *MSG Media Service*, at 101.

¹¹⁰³ Case IV/M.553, *RTL/Veronica/Endemol* [1996] OJ L134/21.

For one, it was one of the indications of HMG's "very strong position" in the market for TV broadcasting.¹¹⁰⁴

In order to demonstrate that position, the Commission stressed the following factors: RTL was the only Dutch commercial operator offering a full programme service at the time of the merger¹¹⁰⁵; HMG would have access to the large resources of RTL's mother company that operates strong and successful television channels in other European countries¹¹⁰⁶; HMG would be structurally linked to Endemol¹¹⁰⁷; and, not allowing public broadcasters to coordinate programming on the public channels in such a way to provide complementary programme schedules.¹¹⁰⁸ In addition, it emphasised HMG's ability to bundle advertising space of popular programmes with the space of less successful programmes.¹¹⁰⁹ It is evident that the Commission can rely on HMG's bundling capacity as one of the factors establishing its strong position. It is generally accepted that conduct showing a firm can act largely in disregard of rivals on the market may confirm that it is in a dominant position.¹¹¹⁰ For instance, in *United Brands*, the firm's ability to adapt its prices to competitive conditions in the various national markets was evidence of its dominant position.¹¹¹¹

At a second level, the Commission seems to have been concerned with strategic bundling between the market for TV broadcasting and the market for TV advertising, although leveraging is not expressly mentioned. In fact, the Commission believed that HMG would be able to coordinate its programmes in such a way that bundling of advertising space, in combination with the grant of rebates would become a realistic scenario.¹¹¹² As the Commission observed:

HMG can maximise the possibility to offer suitable slots to the advertising industry, for example, by offering slots for specific target groups across the three channels in a complementary manner. More generally, HMG can offer *package deals* to advertisers which go beyond the normal practice of granting rebates on the basis of the total value of advertising time purchased. HMG can, in commercial terms, link advertising on one channel with advertising on one or more of its other channels.¹¹¹³

¹¹⁰⁴ Case IV/M.553, *RTL/Veronica/Endemol*, at 64.

¹¹⁰⁵ Case IV/M.553, *RTL/Veronica/Endemol*, at 41.

¹¹⁰⁶ Case IV/M.553, *RTL/Veronica/Endemol*, at 41.

¹¹⁰⁷ Case IV/M.553, *RTL/Veronica/Endemol*, at 45.

¹¹⁰⁸ Case IV/M.553, *RTL/Veronica/Endemol*, at 47.

¹¹⁰⁹ Case IV/M.553, *RTL/Veronica/Endemol*, at 43.

¹¹¹⁰ See Ritter *et al.*, *op. cit.*, p. 344.

¹¹¹¹ Case 27/76, *United Brands v. Commission* [1978] ECR 207, at 204-234.

¹¹¹² Case IV/M.553, *RTL/Veronica/Endemol*, at 43, 78 and 86.

¹¹¹³ Case IV/M.553, *RTL/Veronica/Endemol*, at 77-78 (emphasis added).

Once again, efficiencies were not considered, and subsequently, the Commission blocked the proposed transaction. Considering HMG's broadcasting rights of important sporting events¹¹¹⁴ and its sponsoring abilities¹¹¹⁵, the Commission expected HMG to hold a market share of 60 percent in the market for TV advertising.¹¹¹⁶

It could be argued that the Commission focused upon the long-term effects of coordinating TV programmes. This practice would foreclose other broadcasters from the advertising market for two interrelated reasons. The first one considers the fact that the Dutch market for advertising will not leave significant room for entrants, as the largest part of the growth of the market would be captured by HMG.¹¹¹⁷ The second reason is that HMG would also deprive rivals of their opportunities to compete in the advertising market because it would be difficult for a newcomer to build a programme schedule for the Dutch market which would be attractive to advertisers.¹¹¹⁸

Other manifestations of the bundling theory were discernable in a string of conglomerate cases in the retailing sector. In the 90s, the Commission began assessing the *range* or *portfolio effects* of a notified transaction under the European merger rules.¹¹¹⁹ As the Commission explained in *Guinness/Grand Metropolitan*, a merged entity holding a wide portfolio of products has:

greater flexibility to structure [its] prices, promotions and discounts, [it] will have greater potential for tying, and [it] will be able to realise economies of scale and scope in [its] sales and marketing activities. Finally, the implicit (or explicit) threat of refusal to supply is more potent.¹¹²⁰

There has been much debate over the underlying notion of this statement.¹¹²¹ The Commission can surely be criticised for unnecessarily introducing a new concept into merger control.¹¹²² It seems to view portfolio effects as a collection of leveraging and other theories of competitive harm, some or all of which may be applicable to the same transaction. I submit that the theory makes only economic sense

¹¹¹⁴ Case IV/M.553, *RTL/Veronica/Endemol*, at 76.

¹¹¹⁵ Case IV/M.553, *RTL/Veronica/Endemol*, at 79-80.

¹¹¹⁶ Case IV/M.553, *RTL/Veronica/Endemol*, at 64.

¹¹¹⁷ Case IV/M.553, *RTL/Veronica/Endemol*, at 85.

¹¹¹⁸ Case IV/M.553, *RTL/Veronica/Endemol*, at 85.

¹¹¹⁹ For details, see OECD, *op. cit.*, pp. 239-244; and, Baker and Ridyard, "Portfolio Power: A Rum Deal?", *ECLR* 181 (1999).

¹¹²⁰ Case IV/M.938, *Guinness/Grand Metropolitan* [1998] OJ L 288/24, at 40. For critique on the vacuous nature of the definition, see Burnley, *op. cit.*, p. 53.

¹¹²¹ See Lindsay, *op. cit.*, pp. 410-414.

¹¹²² See Bishop and Walker, in an older version of *The Economics of EC Competition Law* (London, 1999), noting that "[t]he introduction of a new enforcement 'buzzword' does little to advance the quality of analysis and could act as an excuse for excessive and unwarranted intervention" (p. 160). Likewise critical, see Lofaro and Ridyard, "Beyond Bork: New Economic Theories of Exclusion in Merger Cases", *ECLR* 151 (2002), p. 153.

in its "narrow form."¹¹²³ Essentially, it assesses whether the merged group can profitably leverage market power in one brand into a market where it holds a weaker brand by offering the products in a bundle. The Commission has investigated in particular whether the merged group would have the ability to bundle its position in a *must stock* market with other products held in its portfolio.

For instance, in *Coca-Cola/Amalgamated Beverages*, Coca-Cola was attempting to acquire its UK bottler. With regards to the merger, the Commission examined whether a beverage portfolio of carbonated soft drinks would give Coca-Cola the possibility to leverage its strong position in the market for cola drinks into other soft drink markets.¹¹²⁴ It was worried that Coca-Cola would be able to exploit its portfolio by linking discounts for Coca-Cola to increased sales of its other products.¹¹²⁵ The Commission ultimately found that the acquired bottler already had advantages arising from its wide portfolio, and the merger would not strengthen this position.

However, in *Coca-Cola Company/Carlsberg*, the Commission held that a beverage portfolio of carbonated soft drinks, packaged water and beer was problematic.¹¹²⁶ It observed that: "the inclusion of strong beer and packaged water brands, such as those of Carlsberg, in the beverage portfolio gives each of the brands in the portfolio greater market power than if they were sold on a stand alone basis."¹¹²⁷

In order to obtain clearance for the acquisition, it required the parties to divest an interest in a carbonated soft drink bottling company as well as in the third largest cola brand in Denmark. The Commission also emphasised that economies of scale and scope were "key competitive factors" in the carbonated soft drink market and that the merged entity would take advantage of these efficiencies.¹¹²⁸ It was found that the portfolio of the merged entity would strengthen the existing dominant position in the tying market.

In *Guinness/Grand Metropolitan*, the analysis also focused on the competition effects resulting from the formation of a wide portfolio of product brands across various categories of spirits.¹¹²⁹ The case involved the proposed merger of the spirits arms of Guinness and Grand Metropolitan. The firms' product ranges

¹¹²³ See Lindsay, *op. cit.*, pp. 410-411. In its intermediate form, portfolio effects are a collection of leveraging theories and other theories, whereas in its broadest form, they are a separate theory as such.

¹¹²⁴ Case COMP/M.794, *Coca-Cola Company/Amalgamated Beverages GB* [1997] OJ L 218/15.

¹¹²⁵ Case COMP/M.794, *Coca-Cola Company/Amalgamated Beverages GB*, at 110.

¹¹²⁶ Case COMP/M.833, *Coca-Cola Company/Carlsberg A/S* [1998] OJ L 288/24.

¹¹²⁷ Case COMP/M.833, *Coca-Cola Company/Carlsberg A/S*, at 67.

¹¹²⁸ Case COMP/M.833, *Coca-Cola Company/Carlsberg A/S*, at 66-68.

¹¹²⁹ Case IV/M.938, *Guinness/Grand Metropolitan* [1998] OJ L 288/24.

were largely complementary. The merger was found to create problematic overlaps in Spain (Scotch whiskey), Greece (whiskey) and Belgium (whiskey, gin and vodka). These concerns were remedied by requiring the merged group to sell two whiskey brands, end its distribution agreement for one type of vodka brand and appoint a third-party distributor for gin in Belgium and Luxembourg. Despite the fact that there was no overlap in the supply of rum in Greece, the Commission also required the new entity to terminate its distribution agreement in that country. The rationale for these commitments was that the new undertaking would be in a position to exercise portfolio power.

The Commission's decision identified a number of factors in order to examine whether the increased portfolio would result in strategic bundling:

[t]he strength of [portfolio power], and their potential effect on the competitive structure of the market, depends on a number of factors, including [...] the market shares of the various brands, particularly in relation to the shares of competitors; the relative importance of the individual markets in which the parties have significant shares and brands across the range of product markets in which the portfolio is held; and/or the number of markets in which the portfolio holder has a brand leader or the leading brand. In addition the strength of a portfolio effect has to be considered in the context of the relative strength of competitors' brands and their portfolios.¹¹³⁰

Basically, here the Commission requires conducting an extensive market analysis in order to determine whether the new group would have the ability to profitably engage in bundling.¹¹³¹

Repeatedly, the Commission stated that portfolio effects occur if at least one of the products involved is a *must stock* brand. In *Newell/Rubbermaid*, the theory was rejected as none of the merging parties had "any significant market power" with regards to any of their products involved.¹¹³² In *Coca-Cola/Nestle/JV*, the theory was dismissed because: "[n]o portfolio effects [...] would arise from the concentration as iced tea is far from being a 'must stock' product in Spain, being still a novel product in that country with volumes very small compared to other soft drinks and other countries."¹¹³³

Another important feature to consider in leveraging seems to be whether the portfolio goods are typically purchased together or the supplier could ensure that they are purchased together. In *Akzo Nobel/Hoechst Roussel Vet*, the Commission stressed the need to assess whether the products

¹¹³⁰ Case IV/M.938, *Guinness/Grand Metropolitan*, at 41-42. See also Case Comp/M.2268, *Pernod Ricard/Diageo/Seagram Spirits* [2002] C 16/13.

¹¹³¹ For details, see OECD, *op. cit.*, pp. 239-244.

¹¹³² Case IV/M.1355, *Newell/Rubbermaid* [1999] OJ C 109/3, at 19. See also Case COMP/M.1681, *Akzo Nobel/Hoechst Roussel Vet* [2000] OJ C 11/5, at 40-41; and Case IV/M.938, *Guinness/Grand Metropolitan*, at 41.

¹¹³³ Case COMP/M.2276, *Coca-Cola/Nestle/JV* [2001] OJ C 308/13, at 37.

involved could be used in combination for certain indications.¹¹³⁴ The concerns were ultimately ruled out because the parties' products were sold to different customer groups.¹¹³⁵

Likewise, in *INA/FAG*, the Commission partially ruled out bundling concerns with regards to a full-range supplier of bearings because customers bought bearings separately from different suppliers.¹¹³⁶ In order to determine whether a supplier can ensure that products are purchased together, the Commission also takes into consideration the cost of doing so. For instance, it cleared the proposed merger in *UIAG/Carlisle/Andritz* because there would have been substantial costs in adapting the products involved so as to make them compatible with one another.¹¹³⁷

When blocking a portfolio merger, the Commission has also emphasised whether competitors can readily match the merged entity's product range or not. The Commission attempts to look at foreclosure here. It appears to consider whether the merger would create a market structure that significantly pre-empts rivals' opportunities. In *Guinness/Grand Metropolitan*, it stressed that competitors of the merged group would have "weaker portfolios and fewer strong brands."¹¹³⁸ By contrast, in *Akzo Nobel/Hoechst Roussel Vet* and in *INA/FAG*, it ruled out portfolio effects because rival suppliers had similar attractive portfolios.¹¹³⁹ In *Coca-Cola/Carlsberg*, in accepting the proposed undertakings, one of the factors considered was that the joint venture's main rival would have "sufficiently broad range of products in its portfolio."¹¹⁴⁰

Potential competition was also considered. The Commission appears to regard the portfolio range *in itself* as a barrier to entry as it reduces potential competition due to the economies of scale or scope. In *Coca-Cola/Amalgamated Beverages*, it emphasised that the must stock character of Coca-Cola meant that potential competitors had difficulty obtaining access to top shelf space.¹¹⁴¹ The same approach was noticeable in *Guinness/Grand Metropolitan*, where it was stated that "as a result of the creation of [the merged group] entry of new products is likely to become more difficult."¹¹⁴²

¹¹³⁴ Case COMP/M.1681, *Akzo Nobel/Hoechst Roussel Vet*, at 40-41.

¹¹³⁵ Case COMP/M.1681, *Akzo Nobel/Hoechst Roussel Vet*, at 32-102.

¹¹³⁶ Case COMP/M.2608, *INA/FAG* [2001] OJ C 272/3, at 34. See also Case IV/M.1355, *Newell/Rubbermaid*, excluding range effects because "the product markets in which the portfolio is held, widely diverge from each other thus making tying sales and predatory pricing unprofitable" (at 19).

¹¹³⁷ Case COMP/M.1736, *UIAG/Carlisle/Andritz* [2000] OJ C 14/7, at 13.

¹¹³⁸ Case IV/M.938, *Guinness/Grand Metropolitan*, at 103.

¹¹³⁹ Case COMP/M.1681, *Akzo Nobel/Hoechst Roussel Vet*, at 98 and 103; and, Case COMP/M.2608, *INA/FAG*, at 34.

¹¹⁴⁰ Case COMP/M.833, *Coca-Cola Company/Carlsberg A/S*, at 113.

¹¹⁴¹ Case COMP/M.794, *Coca-Cola Company/Amalgamated Beverages GB*, at 190.

¹¹⁴² Case IV/M.938, *Guinness/Grand Metropolitan*, at 113.

As a final point, it can be stressed that the Commission looks at consumer power. In *Allied Signal/Honeywell*, it ruled out the risk of pure bundling, in part because customers were knowledgeable, and would allow bundling only if it was in their advantage.¹¹⁴³ More importantly, it found that customers could retaliate against any unwanted bundle, for they could obtain the various products of the bundle from other suppliers.¹¹⁴⁴ By contrast, in *Dana/Glacier Vandervell*, customers' reaction was seen as a reason to justify the post-merger bundling practice.¹¹⁴⁵ In this case, the Commission rejected the portfolio concerns with the argument that customers were increasingly moving towards demanding product packages.

In *Danish Crown/Vestjyske Slagterier*, the Commission investigated the proposed merger of two leading slaughterhouses in Denmark.¹¹⁴⁶ Approving the proposed merger after undertakings were offered, the Commission was afraid that the transaction would result in bundled sale of beef and pork through "discounting schemes."¹¹⁴⁷ As a result, the merger would have enabled the parties to "push the sale of pork using beef as a lever and vice versa."¹¹⁴⁸ The Commission stressed that the combined group would be in a position to offer a more complete product range than its competitors: "the concentration will achieve volumes which will make it possible to move from present/indirect/narrow-assortment sales to the retail sector to a full-assortment, direct supplier status for retailers in some of the major European markets."¹¹⁴⁹

The Commission apparently feared that the transaction could have led to the exit of competitors from the relevant markets in the long run. While parties claimed that the fuller product line would benefit their consumers, it considered that the merger formed an obstacle to competition. As for the claimed efficiencies, it noted that: "the majority of the cost savings listed by the parties would seem to be at least partially achievable without the merger."¹¹⁵⁰

In sum, the Commission began developing a bundling theory. The rudimentary framework of analysis was promising. Market power was required in the main market, while the Commission also suggested worrying about foreclosure in the second market. However, possible efficiency gains were not

¹¹⁴³ Case COMP/M.1601, *Allied Signal/Honeywell* [2001] OJ L 152/1, at 113. See also Case IV/M.938, *Guinness/Grand Metropolitan*, at 104-112.

¹¹⁴⁴ Case COMP/M.1601, *Allied Signal/Honeywell*, at 120.

¹¹⁴⁵ Case IV/1335, *Dana/Glacier Vandervell* [1999] OJ C 25/18, at 15.

¹¹⁴⁶ Case IV/M.1313, *Danish Crown/Vestjyske Slagterier* [2000] OJ L 20/1.

¹¹⁴⁷ Case IV/M.1313, *Danish Crown/Vestjyske Slagterier*, at 196.

¹¹⁴⁸ Case IV/M.1313, *Danish Crown/Vestjyske Slagterier*, at 196.

¹¹⁴⁹ Case IV/M.1313, *Danish Crown/Vestjyske Slagterier*, at 198.

¹¹⁵⁰ Case IV/M.1313, *Danish Crown/Vestjyske Slagterier*, at 198.

considered as a positive feature, but rather, as a reason to oppose the merger.¹¹⁵¹ Moreover, the Commission seems to have considered the must stock character of a particular brand sufficient grounds to assume market power and even foreclosure in other markets.

4.3. The bundling theory of the new century

With the turn of the century, EC merger control began applying a somewhat mature bundling analysis, although significant misapplications still occurred. While early on the Commission played a major role in developing the theory, now the Community Courts became involved. They have without doubt clarified the scope and application of the bundling theory.

For the first time, bundling concerns were explicitly addressed in most cases. For instance, Commission decisions were using headings like 'bundling,' 'tying,' or 'technical bundling' when assessing the effects on competition. Unlike the 90s, where there was a focus on specific sectors, the Commission applied the bundling theory particularly to conglomerate mergers. The Commission has now blocked some major conglomerate mergers for strategic bundling reasons, causing a clear divergence with US merger law.

An interesting case in 2000 leading in part to a bundling problem was *AOL/Time Warner*.¹¹⁵² This case concerned the first significant merger involving the Internet. The proposed transaction combined AOL's Internet access services and know-how with Time Warner's media and entertainment content. Basically, the merger partially affected the markets for online music delivery media players and Internet access. In addition to the traditional objections against vertical integration, the Commission appears to have been troubled by the ability of the new group to bundle online music distribution with both the media player market and Internet access.

Considering that Time Warner has the largest music library in Europe¹¹⁵³, it found the new entity dominant on the market for online music delivery.¹¹⁵⁴ Observing that position, the Commission noted that:

¹¹⁵¹ Likewise critical, see Burnley, *op. cit.*, pp. 58-59; and, Baker and Ridyard, *op. cit.*, pp. 182-184.

¹¹⁵² Case COMP/M.1845, *AOL/Time Warner* [2001] OJ L 268/28.

¹¹⁵³ Case COMP/M.1845, *AOL/Time Warner*, at 46.

¹¹⁵⁴ Case COMP/M.1845, *AOL/Time Warner*, at 59.

[o]ne entity controlling such a sizeable music catalogue could exercise substantial market power, by refusing to license its rights, or threatening not to licence them or imposing high or discriminatory prices and *other unfair commercial conditions* on its customers wishing to acquire such rights (such as internet retailers offerings music downloads and streaming).¹¹⁵⁵

Bundling practices seem to have been one type of the *unfair commercial conditions* that the new group could impose. First, the Commission feared technical bundling of Time Warner's online music with AOL's media player Winamp. Media players are software devices incorporated in a computer that enable computer users to play audio files. The new group could decide to "format Time Warner music to make it compatible only with Winamp," so that it would become the only music player capable of playing Time Warner's online music.¹¹⁵⁶

Second, the Commission expected the merged entity to leverage its strong position in the online music market to the market for Internet access. The new entity could indeed bundle music and access in attractive packages, like offering subscriptions for AOL with free Time Warner music. It could also bundle both markets by adapting music CDs to carry AOL's software, encouraging music fans to register with AOL. As a result, the Commission predicted that the new group would obtain a dominant position in the UK where AOL already had a strong market position.

In *Boeing/Hughes*, the Commission investigated the merger between Hughes, a supplier of satellites, and Boeing, a supplier of satellite launch services.¹¹⁵⁷ The merger resulted in the integration of Hughes' commercial satellite operations with Boeing's services to deliver satellites to space orbit. Although the transaction was ultimately approved, the Commission was seriously concerned about the ability of the merged entity to technically tie together the satellites and launchers by making the satellite interfaces incompatible with launchers other than Boeing.

The Commission seems to have worried about the ability of the new group to leverage its strong position in the satellite market into the market for satellite launchers. It ultimately rejected this possibility based on the single monopoly profit-theorem. As it stressed:

[i]t appears that, although the behaviour [...] might theoretically lead customers to favour Boeing's launch services, it could also undermine competitiveness on the satellite market [...] In that context, it is necessary to examine whether the merged entity would gain more through

¹¹⁵⁵ Case COMP/M.1845, *AOL/Time Warner*, at 47.

¹¹⁵⁶ Case COMP/M.1845, *AOL/Time Warner*, at 60.

¹¹⁵⁷ Case COMP/M.1879, *Boeing/Hughes* [2004] OJ L 63/53.

additional launch services contracts than it would lose through lost satellite contracts, if it were to engage in such behaviour."¹¹⁵⁸

Based on the facts, the Commission found that there was no risk of strategic bundling.¹¹⁵⁹ First, the merging parties lacked sufficient market power in the market for satellites. As the Commission stated, "even launch service competitors who expressed concerns admit that, in the absence of substantial market power on the satellite market, the leveraging could not profitable take place."¹¹⁶⁰ Second, strong consumer preferences for other launchers would also prevent the merged entity from indulging in tying. It was stressed that "consumers will not accept having the choice of launcher imposed on them, and that any attempt by [new entity] to design satellites compatible with only [Boeing's] launch would meet resistance from consumers."¹¹⁶¹

Perhaps the best-known and most controversial instance of the bundling theory is *GE/Honeywell*.¹¹⁶² The product offerings of the two companies were to a large extent complementary. GE was one of largest manufacturer of aircraft engines. Honeywell also made engines and was the leading supplier of avionics, components used in aircraft engines. GE was considered dominant in the market for large commercial aircraft jet engines.¹¹⁶³ One of the concerns brought forward by the Commission hinges on the new group bundling GE and Honeywell products:

[t]he complementary nature of the GE and Honeywell product offerings coupled with their respective existing market positions will give the merged entity the ability and the economically rational incentive to engage in bundled offers or cross-subsidisation across product sales to both categories of customers.¹¹⁶⁴

The Commission's decision stressed the extent of the new entity's product range, the fact that customers were price-sensitive and attracted by bundled offers as shown by the current and past

¹¹⁵⁸ Case COMP/M.1879, *Boeing/Hughes* [2004] OJ L 63/53, at 83.

¹¹⁵⁹ For a positive review, see Lofaro and Ridyard, *op. cit.*, pp. 152-153.

¹¹⁶⁰ Case COMP/M.1879, *Boeing/Hughes*, at 93. That leveraging is not profitable in the absence of a dominant position in the main market was affirmed in Case COMP/JV.15, *BT/AT&T*. In that case, the Commission dismissed bundling concerns because "the joint venture will not hold a dominant position on any of the markets in which it will be active, so any tying of BT's services to those offered by the joint venture could not lead to any increase in market power, since any advantage that BT could obtain from the creation of the joint venture could be matched by other UK operators either on their own or in conjunction with the joint venture's competitors" (at 163).

¹¹⁶¹ Case COMP/M.1879, *Boeing/Hughes*, at 87. See also Case COMP M.2397, *BC Funds/Sanitec*, [2001] OJ C 207/9, where the Commission found that the new entity would not have an incentive to engage in pure bundling "in case wholesalers were not prepared to take the whole range" (at 17).

¹¹⁶² Case COMP/M.2220, *GE/Honeywell* [2004] OJ L 48/1. For critical reviews, see Motta, *Competition Policy – Theory and Practice* (Cambridge, 2004), pp. 379-391; and, Evans and Salinger, "Competition Thinking at the European Commission: Lessons from the Aborted GE/Honeywell Merger", *Geo. Mason L. Rev.* 489 (2002). For a more positive review, see Briggs and Rosenblatt, "GE/Honeywell – Live and Let Die: A Response to Kolasky & Greenfield", *Geo. Mason L. Rev.* 459 (2002).

¹¹⁶³ Case COMP/M.2220, *GE/Honeywell*, at 38, 108-116, 125-133.

¹¹⁶⁴ Case COMP/M.2220, *GE/Honeywell*, at 349.

success of bundles in the markets concerned, and the fact that rivals were unable to provide customers with the same type of bundles. The Commission found that the merged group would engage in mixed, pure and technical bundling with adverse effects on competitors.¹¹⁶⁵

The main focus of its decision was the possibility that the merged entity would engage in mixed bundling by offering packages of GE engines and Honeywell avionics and non-avionic systems at discounted prices. This would "lead to a re-allocation and therefore to a shift of market share in favour of the merged entity" to such an extent that GE's rivals would be unable to cover their fixed costs and therefore exit the engine market.¹¹⁶⁶ According to the Commission, it would shift demand away from rival suppliers that have neither the product range nor the financial strength to compete. As a result, rival suppliers would cease to act as an effective competitive constraint on the new group.¹¹⁶⁷

The merging parties submitted that the products involved were not typically purchased together. The Commission did not only dispute this fact, but also argued that even if there were different time lines for the selection of jet engines and avionics, "contractual arrangement can always make bundling possible."¹¹⁶⁸ It referred to the possibility of retroactive discounts that would grow proportionally to the number of products ultimately sourced by customers.

The parties also stressed that their ability to profitably engage in bundling would be constrained by the ability of rivals to offer competing bundles, in particular through contractual teaming agreements with one another. The Commission rejected this argument. It noted that:

even if competing bundles through teaming were to be regarded by customers as attractive as those of the merged entity, customers will then make purchasing decisions on the basis of the respective prices of these bundles [...] In the absence of economic integration among competing suppliers, the prices of their bundles cannot be expected to be lower than those of the merged entity.¹¹⁶⁹

Essentially, the Commission deprives consumers of gains in terms of lower prices, at least in the short-term, for the sake of long-term competition. Any conclusion that the merger is likely to result in the exclusion of rivals must be supported by highly particularised evidence and reasoning to avoid any

¹¹⁶⁵ Case COMP/M.2220, *GE/Honeywell*, at 360.

¹¹⁶⁶ Case COMP/M.2220, *GE/Honeywell*, at 350-355, 398.

¹¹⁶⁷ Case COMP/M.2220, *GE/Honeywell*, at 398-402.

¹¹⁶⁸ Case COMP/M.2220, *GE/Honeywell*, at 373.

¹¹⁶⁹ Case COMP/M.2220, *GE/Honeywell*, at 378.

suspicion that the analysis is premised on self-serving statements by rival suppliers suffering competitive disadvantage due to reduced prices.

Whether the Commission succeeded in making this inherently difficult analysis is doubtful, in my view. For one, its reasoning appears to be supported merely by the theoretical argument that a firm might use bundling so as to exclude a rival from the market. Second, there was no evidence that bundling was already observed in the industry. Both arguments were disputed by the merging parties.

As for the first point, the Commission based its decision on an economic model developed by Nalebuff. However, it failed to demonstrate that his assumptions were consistent with the characteristics and nature of the markets under investigation. As for the latter, it seems that the empirical evidence was weak, considering the fact that package discounts were not common in aerospace markets. This observation was confirmed by *competitors* at the oral hearing.¹¹⁷⁰ It must be stressed that Honeywell was already in a position to offer bundles, but there was no evidence that it had engaged in mixed bundling in relation to jet engines and avionics.

There are some issues in *GE/Honeywell* that remain open. The first question concerns the likelihood of GE rivals actually exiting the market. The Commission seems to underestimate the strong presence of some rivals, and does not properly discuss the possibility that they would ally with other companies in order to acquire smaller companies to fight GE.¹¹⁷¹ More fundamentally, did not determine *when* the exit of rivals was supposed to take place. This is very unfortunate considering that the operating life of an aircraft is long, and thus, it would take a long time to ensure a rival's exit. As a consequence, this implies that the Commission has not made a trade-off between the lower prices *immediately after the merger* and the possible post-merger price increases *after rivals have exited over some time*.

Similarly unfortunate is the fact that the Commission's decision never mentioned the efficiency gains. In theory, it is possible that the efficiency gains might eventually outweigh any negative effect on consumers. However, this was not assessed. Ultimately, I wonder why the Commission did not approve the merger with an undertaking that the new entity would refrain from mixed bundling.¹¹⁷² The Commission's argument that it did not want to continuously monitor the industry was arguably weak. It would not have been difficult to implement this commitment. Any cost could have fallen upon the

¹¹⁷⁰ See Pflanz and Caffarra, "The Economics of GE/Honeywell", ECLR 115 (2002), p. 116.

¹¹⁷¹ COMP/M.2220, *GE/Honeywell*, at 377-386.

¹¹⁷² COMP/M.2220, *GE/Honeywell*, at 53.

merging parties. Given my comments on remedies and bundling in Chapter 1, a behavioural commitment not to bundle would have recognised the possible efficiencies due to the merger. Potential anti-competitive effects could have been addressed under Article 82 EC.

Another important and explicit application of the bundling theory is *Tetra Laval*.¹¹⁷³ The case involved the liquid food packaging industry. Packaging involves the use of machinery that transforms cardboard or plastic consumables into containers. In the case of PET bottles, stretch blow moulding ("SBM") machines are used for this purpose. The filling process is either aseptic (typically used for long-life dairy products and juices) or non-aseptic, used for fresh milk or soft drinks. Cartons are normally used for packaging sensitive products that must be shielded from light and oxygen.

Conversely, PET bottles are used for carbonated drinks. Recent innovations to PET bottles make it increasingly suitable for packaging sensitive products. It is expected that PET use will increase in the future and that the carton and PET markets would accordingly converge. In May 2001, Tetra Laval notified the Commission of its intention to acquire Sidel. Most relevant to the antitrust assessment were the markets for cartons and plastic packaging and the respective equipment markets. Those markets were further divided into aseptic and non-aseptic markets. Tetra held a dominant position in the aseptic carton markets and a leading position in the non-aseptic carton markets. Sidel held leading positions in the markets for SBM machines and a strong position in related markets for PET packaging.

One of the reasons that the Commission considered to veto the proposed transaction concerned strategic bundling. The Commission's decision analysed the effects of the merger under the heading 'Ability and incentive to leverage.' According to the Commission, there was a "need for particular vigilance" of the merger.¹¹⁷⁴ It believed that the combination of Tetra Laval's dominant position in cartons and Sidel's leading position in PET packaging equipment would provide the new entity with the ability to leverage its power in cartons into the PET markets.¹¹⁷⁵ As it noted, "nothing would stop the combined entity from inducing customers to source their equipment at the same time and from a single source, changing the nature of business."¹¹⁷⁶ It stressed that Tetra Laval had a "particularly strong dominant

¹¹⁷³ Case COMP/M.2416, *Tetra Laval/Sidel*, [2004] OJ L 43/13. For details, see Howarth, "Tetra Laval/Sidel: Microeconomics or Microlaw", ECLR 369 (2005); and, "Editorial Comments", CMLRev. 1 (2003).

¹¹⁷⁴ Case COMP/M.2416, *Tetra Laval/Sidel*, at 359.

¹¹⁷⁵ Case COMP/M.2416, *Tetra Laval/Sidel*, at 392-400.

¹¹⁷⁶ Case COMP/M.2416, *Tetra Laval/Sidel*, at 345.

position" in the carton market, given its market share of 80-90%, while Sidel held a market share of 60-70% in the PET market.¹¹⁷⁷

It also observed that the new entity would have an "added incentive" to leverage. Not only could it obtain dominance in the second market, but comperably also defended its position in the main market: "when a customer switches to PET he/she is a lost customer on the carton side of the business either because he/she partially switched *from* carton or because he/she did not switch some of the production *to* carton from other packaging materials."¹¹⁷⁸

It was further emphasised that the merged group's rivals would be much smaller, with the largest competitor having less than 20% of the market. Another factor that was considered was the fact the merged entity had a close and long-term relationship with most juice and dairy packagers.¹¹⁷⁹ Tetra Laval would know when a carton packager would like to switch to PET packaging, and, knowing its customers' needs, the merged entity could timely approach and discuss such a move with its customers. Without making any analysis, the Commission turned down Tetra Laval's proposition to refrain from bundling for 10 years after closure of the merger. The Commission only wanted to consider structural remedies.

In July 2002, the bundling theory was also expressly applied in *Telia/Sonera*.¹¹⁸⁰ In that case, the Commission reviewed the integration of Sweden and Finland's dominant telecommunication networks. Telia is one of the largest telecommunications and TV cable operators in the Nordic countries. Sonera is particularly active in Finland, where it is the largest mobile phone operator and largest provider of long-distance network services.

One of the antitrust concerns that surfaced during the investigation was the risk of strategic bundling of the market for fixed telephony services, along with the market for retail mobile and wireless communication services:

[t]he proposed transaction will increase the merged entity's ability to *leverage* its strong positions in the mobile communications services market in Finland, data communications services in Finland and Sweden and (international) fixed voice services in Finland through *bundling* into

¹¹⁷⁷ Case COMP/M.2416, *Tetra Laval/Sidel*, at 359.

¹¹⁷⁸ Case COMP/M.2416, *Tetra Laval/Sidel*, at 359 (emphasis added).

¹¹⁷⁹ Case COMP/M.2416, *Tetra Laval/Sidel*, at 361-363.

¹¹⁸⁰ Case COMP/M.2803, *Telia/Sonera*, [2002] OJ C 201/19.

broader markets such as the market for customised corporate communications services in Finland and Sweden.¹¹⁸¹

The Commission's decision stressed that bundling would take place through assembling "packages" of integrated communication solutions comprising both voice and data communications.¹¹⁸² By doing so, the new entity would raise its rivals' costs and likely foreclose competitors from the retail markets:

[I]n the provision of bundled service offerings there is generally risk that providers of essential parts of the package (such as call termination, access to local and national infrastructure, and wholesale international roaming) can foreclose providers of other parts by either through direct bundling or by offering prices structures that can only make it attractive to buy its solution.¹¹⁸³

Possible efficiency gains due to the transaction were not considered, despite the fact the Commission noted that "there is a growing trend among corporate customers to demand integrated communication solutions."¹¹⁸⁴ The proposed merger was finally approved after the parties offered various behavioural and structural commitments, including the divestiture of Telia's mobile business in Finland.

The appeal in *Tetra Laval* gave the CFI the opportunity to review the legitimacy of the bundling theory for the first time.¹¹⁸⁵ At the outset, the CFI made it clear in October 2002 that a merger can be blocked when "means and capacities brought together by the transaction may immediately create conditions allowing the merged entity to leverage its way so as to acquire, in the relatively near future, a dominant position on the other market."¹¹⁸⁶ In other words, strategic bundling can *in principle* be addressed under the merger rules.¹¹⁸⁷ In its ruling, the Court focused solely on whether the transaction would create or strengthen a dominant position on a market outside the main market. Remarkably, the Court likewise seems to accept strategic bundling in cases of *substitutes*, as it stressed that "leveraging may be carried out when the products in question are ones which the customer finds suitable for the same end use."¹¹⁸⁸

On the leverage claim itself, the Court first observed that conglomerate mergers often have neutral or beneficial effects and do *not* immediately change the *structure* of competition. Any anti-competitive effect that might arise would rely on the new entity engaging in *conduct* that would be likely to infringe

¹¹⁸¹ Case COMP/M.2803, *Telia/Sonera*, at 108 (emphasis added).

¹¹⁸² Case COMP/M.2803, *Telia/Sonera*, at 109.

¹¹⁸³ Case COMP/M.2803, *Telia/Sonera*, at 110.

¹¹⁸⁴ Case COMP/M.2803, *Telia/Sonera*, at 108.

¹¹⁸⁵ Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission* [2002] ECR II-4381. For details, Hettema, "Tetra/Sidel", NTER 55 (2003); and, O'Keeffe, "Gerecht Laatdunkend over Concentratieanalyse Commissie", SEW 212 (2003).

¹¹⁸⁶ Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission*, at 151.

¹¹⁸⁷ For similar recognition, see Völcker, *op. cit.*, p. 588; and, Lindsay, *op. cit.*, pp. 292-293.

¹¹⁸⁸ Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission*, at 196..

Article 82 EC. Accordingly, the CFI held that the Commission must undertake "a precise examination, supported by convincing evidence, of the circumstances"¹¹⁸⁹ that "in all likelihood"¹¹⁹⁰ would create or strengthen dominance "in the relatively near future" in a market other than the main market.¹¹⁹¹

As for the feasibility of leveraging, the intensity of competition in the second market is "fundamental."¹¹⁹² The CFI agreed that the antitrust sins (like bundling) enumerated by the Commission might be committed. According to the Court, the incentive to do so "cannot be excluded."¹¹⁹³ However, the Commission could not assume that the new group would infringe Article 82 EC. The Court seems to accept that the availability of *ex post* remedies under Article 82 EC is a relevant factor. The Commission must thus analyse the "actual likelihood" of such behaviour, taking into account that the incentives to engage in illegal conduct are reduced or even eliminated by the likelihood of detection, remedial action by the Commission and national authorities, and the imposition of fines and other remedies.¹¹⁹⁴ Moreover, the commitment by the merging firms to refrain from such conduct should have been considered. A blanket refusal to assess the impact of a behavioural undertaking is not justified.¹¹⁹⁵

As for facts underlying the Commission's decision, the CFI held that the Commission inflated growth projections for the PET markets.¹¹⁹⁶ It also found that the Commission had underestimated the strength of rivals in the PET market.¹¹⁹⁷ Ultimately, the CFI overturned the merger prohibition, as its analysis was based on insufficient evidence and a "manifest error of assessment."¹¹⁹⁸

The Commission seems to have paid attention to the CFI's arguments in *Tetra Laval*, and became very careful. In 2004, for instance, it decided to clear the proposed acquisition by GE of the UK diagnostic pharmaceuticals and biosciences company Amersham.¹¹⁹⁹ In the absence of overlaps between the companies' activities, the investigation focused on whether GE would be able to foreclose its competitors, namely through bundling its products with those of Amersham. Amersham produces mainly

¹¹⁸⁹ Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission*, at 155.

¹¹⁹⁰ Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission*, at 148 and 153.

¹¹⁹¹ Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission*, at 241, 252, 275.

¹¹⁹² Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission*, at 245. The competition in the second market rendered a leveraging strategy impracticable: "it has not been shown that the number of sales could reach a level which could threaten the strong competition prevailing on the market" (at 245).

¹¹⁹³ Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission*, at 216.

¹¹⁹⁴ Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission*, at 217-224.

¹¹⁹⁵ Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission*, at 219.

¹¹⁹⁶ Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission*, at 192-216.

¹¹⁹⁷ Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission*, at 240-250.

¹¹⁹⁸ Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission*, at 308.

¹¹⁹⁹ Case COMP/M.3304, *GE/Amersham*, not yet published, 21 January 2004, http://europa.eu.int/comm/competition/mergers/cases/decisions/m3304_en.pdf

diagnostic pharmaceuticals that are used to enable diagnostic equipment to image the body's health status, whereas GE Medical Systems specialises in medical diagnostic imaging technology. As the products of GE and Amersham are complementary, and considering that some imaging applications hospitals need to purchase both the hardware and the pharmaceuticals, the Commission was concerned, in particular, that GE could have had incentive to offer mixed bundles, to force pure bundling, or to design its products in such a way that Amersham's products would work better with GE than with rival equipment. These concerns were explicitly assessed under three separate headings in the decision. However, the Commission's market investigation has shown that all three scenarios were unlikely.

As for mixed bundling, this was because neither GE nor Amersham held dominant positions in their respective products in Europe.¹²⁰⁰ Furthermore, both customers and a number of competitors agreed that the markets concerned enjoyed strong competition with viable equipment manufacturers such as Philips, Siemens and Toshiba, and strong producers of pharmaceuticals, such as Schering, Bristol Myers Squibb, Tyco/Mallinckrodt and Bracco. Combined offerings were therefore "generally uncommon in this industry."¹²⁰¹ Rivals would be in the position to respond to the new entity's practices through various counter-strategies like price reductions and similar bundles.¹²⁰² The Commission therefore concluded that these players were unlikely to be foreclosed from the market or to become marginalised. The likelihood of pure bundling by the new entity was dismissed based on the one-monopoly profit theorem:

[t]he investigation suggested that the merged entity would lack economic incentive to engage in such a practice. Indeed, tying GE's DI [Diagnostic Imaging] equipment with Amersham's DPs [Diagnostic Pharmaceuticals] would deny the merged entity significant sales of DPs to the current users of non-GE equipment. Mutatis mutandis, GE would need to forego sales for DI equipment to users that would prefer to continue using non-Amersham DPs, were it to deny customers the sales of stand-alone GE DI equipment. Therefore, forced bundling of DI equipment and DPs seems unlikely to occur as a result of the proposed transaction.¹²⁰³

The technical tying fears were also dismissed when the Commission ascertained that there was perfect interoperability between the different existing equipment and pharmaceutical products.¹²⁰⁴ It also believed that such interoperability was unlikely to be reduced when new products hit the market.

¹²⁰⁰ Case COMP/M.3304, *GE/Amersham*, at 38.

¹²⁰¹ Case COMP/M.3304, *GE/Amersham*, at 35.

¹²⁰² Case COMP/M.3304, *GE/Amersham*, at 39.

¹²⁰³ Case COMP/M.3304, *GE/Amersham*, at 43.

¹²⁰⁴ Case COMP/M.3304, *GE/Amersham*, at 49.

Recently, in February 2005, the bundling question was presented to ECJ.¹²⁰⁵ After the CFI's annulment of the Commission veto in *Tetra Laval*, the Commission re-decided the matter, withdrawing its opposition to the merger but simultaneously appealing the CFI decision to the ECJ. One of the main reproaches in its appeal was the requirement to make a detailed assessment of the impact of *ex post* remedies under Article 82 EC. Like the CFI, the ECJ noted that conglomerate mergers often have beneficial effects and do not change the structure of competition. As Advocate General Tizzano succinctly noted, "the [Commission] decision does not say that the merged entity would *immediately and automatically* acquire a dominant position on the PET packaging equipment markets, but predicts that that would happen only subsequently, by means of abuse of the dominant position already held by Tetra in carton."¹²⁰⁶

When predicting future conduct, the ECJ found that an assessment of incentives to infringe or not infringe Article 82 EC, taking into account enforcement actions by antitrust agencies and the deterring effect of possible fines, would be too speculative.¹²⁰⁷ By contrast, the Advocate General believed that such an assessment would not constitute "insurmountable legal and practical obstacles."¹²⁰⁸ He argued that the CFI did not, in fact, expect the Commission to establish "with certainty" that the unlawful conduct would take place.¹²⁰⁹ Nor did he think that the Commission must demonstrate that the incentives identified would "definitively drive Tetra to engage in that conduct."¹²¹⁰ The Commission was simply asked to take account of all relevant factors. Although the Commission scored on this point of the appeal, the ECJ still upheld the ruling of the CFI. The Commission was namely required, but had failed, to consider Tetra's commitment not to engage in conduct prohibited by Article 82 EC.¹²¹¹

¹²⁰⁵ Case 12/13 P, *Commission v. Tetra Laval*, decision of 15 February 2005, not yet reported. For details, Van Daalen, "De Rechterlijke Toetsing van Concentratiebesluiten: de zaak Tetra Laval", AM 56 (2005) en Howarth, *op. cit.*

¹²⁰⁶ See Advocate General Tizzano, in Case 12/13 P, *Commission v. Tetra Laval*, at 120 (emphasis added).

¹²⁰⁷ Case 12/13 P, *Commission v. Tetra Laval*, at 77.

¹²⁰⁸ See Advocate General Tizzano, in Case 12/13 P, *Commission v. Tetra Laval*, at 125.

¹²⁰⁹ See Advocate General Tizzano, in Case 12/13 P, *Commission v. Tetra Laval*, at 125.

¹²¹⁰ See Advocate General Tizzano, in Case 12/13 P, *Commission v. Tetra Laval*, at 125.

¹²¹¹ Case 12/13 P, *Commission v. Tetra Laval*, at 89.

As for the standard of proof, the Commission pleaded that the CFI erred in applying the *convincing evidence* standard and had exceeded the scope of its review jurisdiction by overturning assessment on matters of discretion. On the issue of discretion, the ECJ observed: "[w]hilst the Court recognises that the Commission has a margin of discretion with regard to economic matters, that does not mean that the Community Courts must refrain from reviewing the Commission's interpretation of information of an economic nature."¹²¹²

The Court noted further that the prospective analysis of merger control must be carried out "with great care," as it does not entail the examination of past or current events.¹²¹³ Rather, it concerns a prediction of events that are more or less likely to occur in the future. With regards to conglomerate mergers (and therefore, strategic bundling), the ECJ held that, because the effects of post-merger conduct are "*dimly discernable, uncertain and difficult to establish*," the quality of evidence required is "*particularly important*."¹²¹⁴ Ultimately, the appeal was turned down.

The most recent application of the bundling theory is *Symantec*.¹²¹⁵ The case involved two American companies. Symantec develops security software and wanted to acquire Veritas, a storage software company. The merger between these two companies is complementary in nature, as both security software and storage software largely function independently of each other. In its review, the Commission expressly examined possible bundling between storage and security under the heading "Bundling/tying."¹²¹⁶ The Commission concluded that the merger would not give rise to competition concerns as such. For one, both types of software can properly function independently of one another and hence no technical bundling is necessary. Second, vendors continue to market these software products separately since no particular added value could be achieved from bundling. Finally, customers tend to purchase both products separately.

¹²¹² Case 12/13 P, *Commission v. Tetra Laval*, at 39.

¹²¹³ Case 12/13 P, *Commission v. Tetra Laval*, at 42.

¹²¹⁴ Case 12/13 P, *Commission v. Tetra Laval*, at 44.

¹²¹⁵ Case COMP/M.3697, *Symantec/Veritas*, not yet published, 15 March 2005, www.europa.eu.int/comm/competition/mergers/cases/decisions/m3697_20050315_20310_en.pdf.

¹²¹⁶ Case COMP/M.3697, *Symantec/Veritas*, at 28-30.

4.4. Interim conclusions

A common antitrust concern that arises, particularly in conglomerate mergers, is the ability of the new entity to leverage a dominant position in one market to a second market in order to have a decisive competitive advantage in that last market. Considering the economic insights of Chapter 1, it is in my view incorrect to dismiss *a priori* these antitrust worries as having no economic foundation. A merger may surely give the new undertaking the ability to bundle its products in a manner that could foreclose competitors and, in the end, reduce competition. However, it is important for such claims to be treated with the utmost care. The Commission appears to have unduly objected to any extension of a firm's product range by applying concepts like *must have* products. That concept may say something about the possible power of that specific product, but bundling is, in my view, only an issue if there is the potential for a significant foreclosure effect.

The bundling theory is in application, without doubt, quite problematic. It should be noted that most cases involve mixed bundling. The competitive harm of mixed bundles may arise from the reduction in the price of the complementary products supplied by the merged entity. The Commission's theory predicts that the new undertaking's prices for the bundled product will, at least in the short term, decrease post-merger. As a consequence, significant competitive harm occurs if rivals are so competitively disadvantaged that they are forced to exit from the market. After their exit, the Commission claims, there will be anti-competitive effects on competition. The problem is that these effects may not take place for several years, if at all. It is arguably a difficult and highly uncertain evaluation to ascertain when and in which magnitude these effects will occur. In many cases, the Commission appears to have assumed that the merged firm will obtain a decisive advantage simply due to its size. While size may surely be an advantage in some circumstances, this does not necessarily equate to an undertaking being competitively more powerful, or even result in strategic bundling.

5. Evaluation of the bundling theory

5.1. The theory in detail

Under the merger rules, the bundling theory clearly focuses on exclusionary leveraging, not short-term leveraging. In *GE/Amersham*, the Commission succinctly described its theory with relation to mixed bundling as follows:

[I]n assessing commercial bundling, the Commission examined whether or not each one of the various conditions that would render it anti-competitive are met in the present case. Indeed, for commercial bundling to result in foreclosure of competition, it is necessary that the merged entity is able to leverage its pre-merger dominance in one product to another complementary product. In addition, for such strategy to be profitable, there must be a reasonable expectation that rivals will not be able to propose a competitive response, and that their resulting marginalisation will force them to exit the market. Finally, once rivals have exited the market, the merged firm must be able to implement unilateral price increases and such increases need to be sustainable in the long term, without being challenged by the likelihood of new rivals entering the market or previously marginalised ones re-entering the market.¹²¹⁷

Essentially, the Commission examines the ability of the merged entity to engage in strategic bundling based on the following factors.¹²¹⁸ First, the Commission defines the product markets involved and evaluates their relationship with each other. An important factor for successful leveraging is that the relevant markets shares concern, to a large extent, the same customers. If there are very few customers interested in buying both products, a leveraging strategy is difficult to implement, even apart from its inability to foreclose rivals. An overlap of customers is likely when the merger involves complementary products. The CFI's suggestion in *Tetra Laval* that bundling of substitutes could also result in leveraging should, in my view, be dismissed as economically unsound.¹²¹⁹

A second issue to consider is the presence of market power or dominance in at least one of the complementary product markets *before* the merger. Völcker dubs this one of the "threshold questions."¹²²⁰ Without market power, it is obvious that there is no concern for leveraging. In fact, the Commission appears to recognise this requirement in its public statements¹²²¹ and within its practice.¹²²² The clearest recognition of this essential condition can be found in *GE/Amersham*, where the

¹²¹⁷ Case COMP/M.3304, *GE/Amersham*, at 37.

¹²¹⁸ See also OECD, *op. cit.*, pp. 239-244.

¹²¹⁹ Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission*, at 196.

¹²²⁰ See Völcker, *op. cit.*, p. 595.

¹²²¹ See Giotakos, "GE/Honeywell: A Theoretic Bundle Assessing Conglomerate Mergers Across the Atlantic", U. Pa. J. Int'l Econ. L. 469 (2002), writing that "[i]ndeed, it can reasonably be argued that a firm that lacks market power in the tying market may not have the ability to leverage such market power to the tied market" (p. 482).

¹²²² Case COMP/M.2220, *GE/Honeywell*, at 357-358 and 369; and, Case IV/M.1355, *Newell/Rubbermaid*, at 19.

Commission stressed that "pre-merger dominance in one product" was necessary for successful leveraging.¹²²³

Third, if the new undertaking has market power in one or more of the complementary products, it may be able to leverage that position into other products of the range. This can be, for instance, by mixed bundling or technical bundling. Whether such an arrangement is realistic must be assessed with regards to the products involved. For instance, in *Symantec*, the Commission did not fear any technical bundling, as the products could function properly independently.¹²²⁴ Fourth, it is essential to examine the specific characteristics of the relevant markets. The merged entity must have the incentive to leverage its position. A combined offering in the form of bundling may not be a commercially viable option if the products are not typically bought together. For instance, the products may not be commercially related, or customers tend to make the purchases at different times.¹²²⁵ Another reason could be that purchasing decisions are not principally driven by price considerations.

The Commission appears to accept quite easily, and arguably unduly, that there are no commercial restraints of this kind. In *GE/Honeywell*, it argued that "contractual arrangements can *always* make bundling possible," even if there are different times lines for purchasing the products.¹²²⁶ In *Tetra Laval*, the Commission even suggested that the merged entity could change the "nature of the business," forcing customers to "source their equipment at the same time and from a single source."¹²²⁷ At this point of the analysis, the Commission must also assess the impact of *ex post* remedies under Article 82 EC. As Advocate General Tizzano stressed in *Tetra Laval*, certainty that illegal behaviour will happen is not necessary.¹²²⁸ Rather, the Commission must generally focus on how the company's *incentives* to engage in illegal behaviour are effected by *ex post* remedies.

Finally, the last important aspect of the analysis lies in the foreseeable foreclosure effects. In *Tetra Laval*, for instance, the Community Courts adequately devoted the most substantial part of their ruling to this question. The core of the examination is the prediction that as a result of the bundling strategy, a sufficient number of rivals will exit the market. This assessment must include the effectiveness of strategic bundling, possible counter actions by rivals as well as their ability to endure the merged entity's

¹²²³ Case COMP/M.3304, *GE/Amersham*, at 37.

¹²²⁴ Case COMP/M.3697, *Symantec/Veritas*, at 28. See also Case COMP/M.3304, *GE/Amersham*, at 44-45.

¹²²⁵ Case COMP/M.3304, *GE/Amersham*, at 35.

¹²²⁶ COMP/M.2220, *GE/Honeywell*, at 378 (emphasis added).

¹²²⁷ Case COMP/M.2416, *Tetra Laval/Sidel*, at 345.

¹²²⁸ See Advocate General Tizzano, in Case 12/13 P, *Commission v. Tetra Laval*, at 125.

practices. After the exit of rivals is predicted, the prospective analysis must consider whether market entry is likely once the combined attempts to raise prices or reduce output.

The final part of this analysis will raise serious evidentiary problems.¹²²⁹ As the ECJ has made it clear in *Tetra Laval*, it is therefore *particularly important* to focus on the quality of evidence and the procedural care required when prohibiting a merger for strategic bundling.¹²³⁰ Whether the Court has hereby changed the standard of proof is open for discussion.¹²³¹ While better evidence is always desirable, the Court failed to fully recognise an important aspect of antitrust analysis in general and particular merger control: uncertainty. As Howarth observes, "the results of a merger are not susceptible to proof one way or the other."¹²³² A more economic approach would recognise that there is uncertainty in real markets. Any merger veto should therefore, in my view, focus on the probability that certain effects will occur.¹²³³

Arguably, this approach is a better reflection of what happens in practice.¹²³⁴ At least the CFI appears to have recognised this point. In *Tetra Laval*, it referred somewhat to probability thresholds: "in all likelihood"¹²³⁵, "particularly plausible"¹²³⁶, and "the certainty required to justify the prohibition of a merger."¹²³⁷ To be sure, those thresholds were not actually applied or explained further. Recently, the Commission appears to have recognised this point, thus deserving recognition. Discussing the *Tetra Laval* judgment, Drauz, a high-ranking Commission official, said:

essentially, the Commission considered that, as in other EU jurisdictions, the standard of proof for prohibiting but also for allowing mergers should be one of the 'balance of probabilities'. In other words, for reaching a final decision (whether positive or negative), it should be required from the Commission to assess, on the basis of the various elements at its disposal, which effects are *the most likely*.¹²³⁸

¹²²⁹ See Völcker, *op. cit.*, pp. 607-608.

¹²³⁰ Case 12/13 P, *Commission v. Tetra Laval*, at 44.

¹²³¹ The CFI President Vesterdorf argues that it did not. See Vesterdorf, "Standard of Proof in Merger Cases: Reflections in the Light of Recent Case Law of the Community Courts", ECJ 3 (2005). For a different view, see Bailey, "Standard of Proof in EC Merger Proceedings: A Common Law Perspective", CMLRev. 845 (2003).

¹²³² See Howarth, *op. cit.*, p. 371.

¹²³³ For a succinct review, see Heyer, "A World of Uncertainty: Economics and the Globalization of Antitrust", *Antitrust L. J.* 375 (2005), pp. 382-386.

¹²³⁴ See Howarth, *op. cit.*, noting that "[t]he competitive effect of a merger is determined partly by what actually happens tomorrow, but also by what firms do today in expectation of what will happen tomorrow. This expectation is usually based on rough probabilities adjusted in the light what happened yesterday" (p. 371).

¹²³⁵ Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission*, at 148 and 153.

¹²³⁶ Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission*, at 162.

¹²³⁷ Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission*, at 234.

¹²³⁸ See Drauz, "Conglomerate and Vertical Mergers in the Light of the Tetra Judgement", *Competition Policy Newsletter* No. 2 Summer 2005, p. 35.

In the case that the merger results in leveraging, the Commission must not always prefer structural remedies. A structural remedy in such a case is designed to reduce the merged entity's market position in the main market or other markets. As *Tetra Laval* shows, divestiture is not always an option to achieve this.¹²³⁹ Behavioural commitments are more targeted remedies that can effectively take away any bundling concern. In both *GE/Honeywell* and *Tetra Laval*, the merging parties promised not to engage in pure or mixed bundling or tying. It is unfortunate that the Commission rejected these undertakings without analysing their impact with the argument that it favours structural remedies and that the proposed commitments required monitoring.¹²⁴⁰

5.2. US criticism

The EC theory on bundling stirred fierce criticism from the other side of the Atlantic. U.S. scholars and officials mainly criticise the prohibition in *GE/Honeywell*.¹²⁴¹ The proposed merger was also notified with the American authorities. The DoJ concluded that there was no evidence supporting a challenge of the merger on the basis of bundling concerns.

First, it is important to note that the US clearance was based upon different factual assumptions.¹²⁴² Despite GE's large market shares in the market for large aircraft engines, the DoJ did not consider it to be dominant. It found that that market share was almost entirely dependent on a single contract with Boeing. Excluding those sales, GE only had a market share of 44%, while its rivals PW and Rolls Royce held 23% and 27% respectively. Moreover, DoJ characterised the market for large aircraft engines as a bid market. Generally, the DoJ stressed, in such a market, historic market shares are weakly indicative of future success. Second, given the US approach towards bundling, the criticism is hardly surprising. It must be borne in mind that US law solely worries about harm to efficiency as represented by artificial limitation of output or price increases. The US agencies examine mergers between potential competitors under the horizontal merger guidelines for their effect on competition, while they generally avoid interfering with non-horizontal mergers.

According to US critics, the EC approach derives from a misplaced tendency to emphasise the protection of *competitors* rather than *competition*. This leads to the finding that economies of scale and efficiency defences are less important than the potential for exclusionary practices. In response, the

¹²³⁹ Case COMP/M.2416, *Tetra Laval/Sidel*, at 421-422, 433-451.

¹²⁴⁰ Case COMP/M.2416, *Tetra Laval/Sidel*, at 431; and, COMP/M.2220, *GE/Honeywell*, at 53.

¹²⁴¹ See OECD, *op. cit.*, pp. 225-227.

¹²⁴² See OECD, *op. cit.*, p. 225.

Commission observed that the exit of rivals may result in an adverse effect on competition *in the long term*. Focusing on the competitive process, it noted:

misleading to accept unconditionally such overly simplistic positions that competitors should never be the focus of antitrust worries and that if inefficient competitors were driven out of the market, even then consumers would be better off overall [...] subject to exceptional cases such as natural monopolies, there can be no effective competition without competitors [...] it might be prudent for antitrust authorities not to adopt unconditionally such a Darwinian theory on the evolution of species, whereby competitors that are unable or unwilling to meet the new competitive environment created through a conglomerate merger should just leave the market.¹²⁴³

The Commission's response is cogent. It apparently says that protection of the competitive structure of an industry must not be confused with protection of inefficient competitors. The underlying idea appears to entail that market exit by an inefficient competitor may not be followed by market entry by a more efficient competitor. These rivals may not enter because of high entry barriers and long industrial cycles. In other words, each relevant market must, the Commission suggests, be carefully assessed on a case-by-case basis.

While the Commission recognises that EC law must protect consumers and not competitors, it is not absolute on this point. In my view, the Commission does well not to consider it like that. EC competition law is distinctly 'European.' After all, the legal substantive test of the Merger Regulation differs significantly from the test applied under the Clayton Act. More importantly, the application of EC law incorporates policy aims that are more unique to Europe.¹²⁴⁴ Further, according to Article 82 EC, dominant companies have a special responsibility with regards to smaller and weaker competitors. Conduct that might be regarded as healthy competition in the US is severely restricted under EC law.

5.3. Discussion of the necessity of *ex ante* control

The Commission believes that there is room for *ex ante* control of bundling under the merger rules. In their view, the very reason for applying the merger regulation is that an *ex-post* control under Article 82 EC is not considered sufficient for the prevention of leveraging. The Commission is convinced that merger control is important: "As is the case with all mergers, efficient application of Article 82 is an inadequate substitute for proper use of ex-ante merger control policy."¹²⁴⁵

¹²⁴³ See Drauz, "Unbundling GE/Honeywell: The Assessment of Conglomerate Mergers under EC Competition Law", in: Hawk (ed.), *Annual Proceedings of the Fordham Corporate Law Institute* (New York, 2002), p.197.

¹²⁴⁴ See Gerber, *Law and Competition in Twentieth Century Europe* (Oxford, 1998), pp. 12-13.

¹²⁴⁵ See OECD, *op. cit.*, p. 243.

In a recent comment, Drauz repeated this point, saying that the very reason for the merger control was that "an *ex-post* control under Article 82 was not considered sufficient for the prevention of such abuses."¹²⁴⁶

To the contrary, there are, in my view, practical and legal arguments that argue in favour of a cautious approach towards the use of merger control in this context.¹²⁴⁷ I have three interrelated arguments: (1) problematic predictions and evaluations of behaviour in the future; (2) blurring distinction of structural and behavioural instruments; and, (3) the role of Article 82 EC.

5.3.1. Problematic predictions and evaluations of behaviour in the future

The first argument relates to the nature of merger control and to the specifics of bundling concerns. This objection is two-fold. First, merger control is about conducting a prospective analysis. It involves an appraisal of how the market will operate in the future. As Ritter writes, it is a "complex evaluation" of the post-merger effects.¹²⁴⁸ By definition, merger control therefore requires a delicate and inherently difficult prospective examination of business effects. With regards to bundling, this kind of analysis is particularly complex and sensitive to small changes in the characteristics of the markets and products. As Pflanz and Caffara succinctly observe:

[t]he prediction of exit is a much more hazardous prediction of short run post-merger price increases as in a horizontal merger – not least because of the extended time-scale involved, and the reliance on assumptions about general economic conditions, the success of future products, etc.¹²⁴⁹

In this context, an *ex post* approach would be more appealing, as it allows the Commission to see whether or not anti-competitive bundling actually occurs. A merger policy for bundling should at least answer affirmatively two questions: (1) would the merged entity engage in bundling; and, if so, (2) would the bundling strategy harm consumers?

It is very difficult, if not impossible, to *ex ante* answer these questions. Waiting would yield important advantages in analysing these issues. The first question would already be resolved at that point, and

¹²⁴⁶ See Drauz (2005), *op. cit.*, p. 38.

¹²⁴⁷ For similar recognition, see Vesterdorf, *op. cit.*, suggesting that Article 82 EC is "particularly apt" for this control (p. 29).

¹²⁴⁸ See Ritter, *op. cit.*, p. 408.

¹²⁴⁹ See Pflanz and Caffara, "The Economics of G.E./Honeywell", ECLR 115 (2002), p. 117.

more evidence on the second question would be available, even if it is not definite. This was also the approach taken by the Commission in *Coca-Cola/Amalgamated Beverages*, where clearance for the merger was accompanied by a reminder of the bottler's obligations under Article 82 EC.¹²⁵⁰

Second, the Commission does not only seek to predict particular events in the future, but also attempts to give a value judgment about the competitive consequences of these events. In the short term, the bundling practice predicted may lead to price reductions. The Commission emphasises that such price reductions or output expansions directly following the merger are of a merely *strategic nature*. These reductions are of short duration. Consumer welfare will ultimately suffer as competitors are eliminated in the second market. This elimination will then lead to price increases. This means that the Commission must estimate the price decrease its duration, and, after the exit of rivals, the price increase and subsequent negative effects on consumers.¹²⁵¹

5.3.2. Blurring distinction between structural and behavioural instruments

From a dogmatic point of view, the introduction of the bundling theory under merger control blurs the distinction between the control of market structure and control of firms' behaviour. As for strategic bundling, it is not the structure resulting from the merger itself that creates an anti-competitive outcome, rather *future conduct*. Leveraging will occur only after a certain amount of time, and will result from the practices engaged by the new undertaking.

5.3.3. The role of Article 82 EC

What is the role of Article 82 EC when assessing mergers? If the theory of merger harm is based on the leveraging theory, then potentially leveraging is also subject to control under Article 82 EC. The relevant practices may qualify as unlawful under this provision. Typically, this applies to the practices addressed, for instance, in *Tetra Laval*, namely bundling and predatory pricing. This suggests, in my view, a cautious approach when applying

To better explain my argument, an analogy should be made with the oligopoly problem under competition law. The legal possibilities to control *ex post* oligopoly are limited.¹²⁵² As a consequence, it

¹²⁵⁰ Case COMP/M.794, *Coca-Cola Company/Amalgamated Beverages GB*.

¹²⁵¹ See de Commission's definition of the bundling concern in Case COMP/M.3304, *GE/Amersham*, at 37.

¹²⁵² See Stroux, *EC Oligopoly Control* (EUI thesis, 2003).

is essential to prevent oligopolistic market structures from coming into existence. However, Article 82 EC leaves little room for bundling: there is no "remediless tying."¹²⁵³

The Community Courts seem to confirm this idea. In *Tetra Laval*, the CFI held that the availability of *ex post* remedies under Article 82 is a relevant factor. With regards to practices caught by Article 82 EC, the CFI in *Tetra Laval* took the view that when assessing the incentives to engage in the leveraging practice:

the Commission must also consider the extent to which those incentives would be reduced or even eliminated owing to the illegality of the conduct, the likelihood of its detection, action taken by competent authorities both at Community and national level, and the final penalties which could ensue.¹²⁵⁴

Although the Court apparently did not view the possibility of enforcement actions under Article 82 EC as sufficient reason to hold the merger rules inapplicable, it found that the Commission could not base its prohibition on behaviour that would predictably infringe Article 82 EC. Arguably, it did not embrace a presumption that companies will act legally. Rather, it believed that the Commission cannot simply presume the contrary. In other words, the Court held that the Commission is required to analyse whether, in the specific circumstances of the case, the incentives of the combined entity to engage in illegal bundling.

6. Conclusions

Merger control in the EU can *in principle* address strategic bundling. Unlike US law, EC law has developed a coherent bundling theory, whereby the main focus is possible exclusionary bundling. However, my claim is that it is advisable to block a merger for those concerns only in very limited cases. The general suggestion is that Article 82 is, in most cases, sufficient to address the bundling issue. Under merger control, the bundling theory faces inherently difficult evaluations that may result in erroneous merger decisions. Considering the power of Article 82, it is thus doubtful whether merger control is necessary in this area.

¹²⁵³ See Areeda and Turner, *op. cit.*, p. 206.

¹²⁵⁴ Cases T-5/02 & T-80/02, *Tetra Laval BV v. Commission*, at 148.

6. CONCLUSIONS

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1. Introductory remarks

In this concluding chapter, I attempt to weave together the various threads that can be found throughout the thesis. My research concerns bundling and leveraging under EC antitrust law. The central focus was to analyse when and how bundling results in anti-competitive leveraging under EC competition law, in particular Article 82 EC and the Community Merger Regulation, in light of recent economic theory.

In order to answer this question, I reviewed in Chapter 4 and 5 the relevant legal doctrines, laws, their interpretations and applications by the European Courts and the Commission. The main observation is that EC law has been overly restrictive toward bundling under Article 82 EC by applying a form-based approach. The Commission failed to take account of the developments in economic thought over the last 20 years or so. Generally, this criticism relates to Article 82 EC, but most certainly to bundling abuses. In recent years, however, the law has moved to a more-effects based approach. As for merger control, bundling can *in principle* be assessed under the Merger Regulation. In a string of merger cases, the Commission has addressed bundling concerns, but has often and quite easily assumed negative effects.

2. There are convergences and divergences between the EC and US

In this thesis, I also made a comparison with US law, its interpretation and its application, as this legal system has a long-standing enforcement history with bundling. As for the similarities and differences between EC and US, two arguably opposing observations can be made.

On the one hand, both jurisdictions are converging, whereby Community law in particular moves into the direction of US law. There is a clear tendency in Europe to consider legal and economic solutions and ideas from the other side of the Atlantic. In *Microsoft*, for instance, the Commission explicitly refers to the US proceedings and settlement. This is a laudable fact, considering the examination of the analysis of bundling shows a similar historical development in both regions. Both jurisdictions know a gradual erosion of the traditional and intuitive *per se* treatment of bundling practices. For European lawyers, there is a lot to be learned from the effects-based analysis that has been applied for many years in the US. I argued that, for instance, the multi-factor test that has been praised in US academic and legal circles should be considered under EC law.

On the other hand, there is unsurprising divergence. For instance, *GE/Honeywell* was approved in the US but vetoed in the EC. In my view, this is an understandable position, as EC competition law is distinctly 'European.' The initial inclusion of competition policy under the ECSC Treaty clearly served the political objective of reining the heart of the German war machine: the coal and steel cartels.¹²⁵⁵ Under the EEC Treaty, and later the EC Treaty, competition law has developed under the influence of the German Ordoliberal school of thought, according to which the actual goal of competition policy is the "protection of individual economic freedom of action as a value in itself, or vice versa, in the restraint of undue economic power."¹²⁵⁶ Another principal objective that is typical for the European context was market integration.¹²⁵⁷

¹²⁵⁵ See Monnet, *Mémoires* (Paris, 1976), noting that "[l]e problème était de briser les concentrations excessives dans la sidérurgie et les charbonnages de la Ruhr" (p. 411).

¹²⁵⁶ See Möschel, "Competition Policy from an Ordo Point of View", in: Peacock and Willgerodt (Eds.), *German Neo-Liberals and the Social Market Economy* (London, 1989), p. 146. For a concise summary of Ordoliberal thinking, see Joerges, "Die Europaisierung des Rechts und die rechtliche Kontrolle von Risiken", *Kritische Vierteljahresschrift für Gesetzgebung und Rechtswissenschaft* 416 (1991).

¹²⁵⁷ See Slot, "A View from the Mountain: 40 Years of Developments in EC Competition Law", *CMLRev.* 443 (2004), p. 445.

The promotion of efficiency has subsequently come to the foreground in the EC.¹²⁵⁸ The importance of this objective was stressed by Advocate General Jacobs when he reminded the Court that "the primary purpose of Article [82] is to prevent distortion of competition – and in particular to safeguard the interests of consumers – rather than to protect the position of particular competitors."¹²⁵⁹ In 2001, former Commissioner Monti described the *raison d'être* of European competition law as ensuring "effective competition between enterprises, by conducting a competition policy which is based on sound economics and which has the protection of consumer interest as its primary concern."¹²⁶⁰

However, the European understanding of competition law is not based on "an attitude of unconditional faith with respect to the operation of market mechanisms", but rather, requires "serious commitment [...] by public powers, aimed at preserving those mechanisms."¹²⁶¹ The primary objective of competition law is economic efficiency focusing upon the consumer surplus maximised over the long run as measured by price and quality. Notably, welfare in the Community context is not equated with consumer welfare in the Chicago tradition of the "total wealth welfare of the nation."¹²⁶² The redistribution of income between producers and consumers is taken into account, as the EC requires that the overall result of the transaction is to the benefit of consumers. Importantly, this view is distinct from the notion of welfare, understood under Ordoliberal ideology as being a corollary of economic freedom of market operators.

3. Economics as a useful tool for the analysis of bundling

Given its interdisciplinary character, this thesis sought to apply economic principles to legal concepts. Economic theory on bundling has changed over the last 20 years or so. The principal economic insights of Chapter 1 can be summarised based on two 'false friends,' frequently articulated in the antitrust literature.

3.1. "Leverage is never possible with complementary products"

This false friend is especially articulated by economists. The old and persistent fear (particularly that of lawyers) is that bundling can result in leveraging of market power. The antitrust concern is that bundling

¹²⁵⁸ This is well explained in Townley, *Article 81: Putting Public Policy in its Place* (EUI Thesis, 2004).

¹²⁵⁹ See Advocate General Jacobs, in Case C-7/97, *Oscar Bronner GmbH & Co KG v. Mediaprint* [1998] ECR I-7791, at 58.

¹²⁶⁰ See Monti, "Antitrust in the US and Europe: a History of Convergence", speech to the American Bar Association, Washington, 14 November 2001.

¹²⁶¹ See Monti, "European Competition Policy for the 21st Century", speech to 28th Annual Conference on International Antitrust Law and Policy, Fordham Corporate Law Institute, 2001.

¹²⁶² See Bork, *op. cit.*, pp. 90-91.

enables a dominant undertaking to transfer its market position in the main market A into a second market B with the aim to extend it into B or to protect its original position.

Historically, however, liberal scholars like Bork and Posner claimed that bundling could hardly have any kind of anti-competitive effects. Bundling is typically beneficial, or associated with price discrimination. This thinking is based on the one-monopoly profit theorem. According to this theory, there is only one monopoly profit. The theorem holds that, when consumers are homogenous, a monopoly supplier of one complement can extract all the monopoly rents through the price of this product. In other words, there is no need to monopolise competitively supplied complements by bundling.

In general, the problem of the one-monopoly profit theorem is that the model does not hold if assumptions are changed. Recent economic research made it clear that the Chicago predictions are based on strict and static assumptions. According to Nalebuff, for instance, leveraging might also be profitable if the assumption that goods are consumed in fixed proportions is relaxed. Today, economics offers a thorough picture of possible incentives and effects of bundling. In particular, economic theory has a more long-term perspective. Possible anti-competitive effects of bundling can be the creation of entry barriers and foreclosure effects.

3.2. “All bundling is anti-competitive”

In legal circles, this false friend has been very popular. It is now well understood that bundling can serve many purposes, both pro- and anti-competitive. One of the major contributions of the economic literature is arguably the increased awareness that bundling may result in efficiencies. There are many possible efficiency-enhancing effects, including cost savings and improvement of quality. Bundling is also often used as a price discrimination device. As cases like *Hilti* and *Tetra Pak II* show, EC law has neglected these pro-competitive explanations for too long. Bundling should, in my view, be assessed with the prior belief that it will be pro-competitive, whereas sometimes it may result in exclusionary leveraging.

4. The structured rule of reason

In order to balance the possible pro and anti-competitive effects, bundling should be examined under a rule of reason test. This observation was also recently stressed in a report written by a group of

academics on behave of the Commission.¹²⁶³ I fully welcome this position. Although the report did not make an explicit distinction between structured and unstructured test, it seems to suggest an unstructured rule of reason.¹²⁶⁴ However, an unstructured inquiry should be dismissed, for it requires a direct weighing of the pro and anti-competitive effects. While the test theoretically has merit, it does not offer in the end what the courts, antitrust authorities or business really need: "workable and operational" tools as Commissioner Kroes recently stressed.¹²⁶⁵ By contrast, the structured test offers in my view a functional and predictable legal standard for all parties involved.

It is first necessary to create safe harbour rules that can quickly filter out obviously innocent cases of bundling.¹²⁶⁶ This saves enforcement costs. While non-dominant undertakings should certainly be covered by the safe harbour, dominant undertakings will not be protected under the safe harbour rule.¹²⁶⁷ After a firm is not protected under the safe harbour rules, it is necessary to produce criteria that make it possible to decide whether bundling is sufficiently likely to have anti-competitive effects. The plausibility of leveraging effects at play should be carefully verified in each specific case. A dominant undertaking does *not* necessarily have the market power required to affect competition. The key requirement of the investigation is to either identify that there are monopoly profits in the short term or that there are entry-deterrent effects in the long term.

To be sure, efficiency benefits could off-set the competition analysis. It is important to assess whether *ex ante* efficiencies were intended to be achieved. The defendant's argument that unbundling would be costly or impractical must be *in principle* rejected. Efficiency claims must be assessed carefully because they can often be achieved without bundling. As the bundling firm is better informed, competition authorities should only consider those efficiencies that are explicitly submitted by the bundling firm. Likewise, because the defendant company has better information about how it achieves these

¹²⁶³ See EAGCP Report, *An Economic Approach to Article 82* (Commission, July 2005), p. 3.

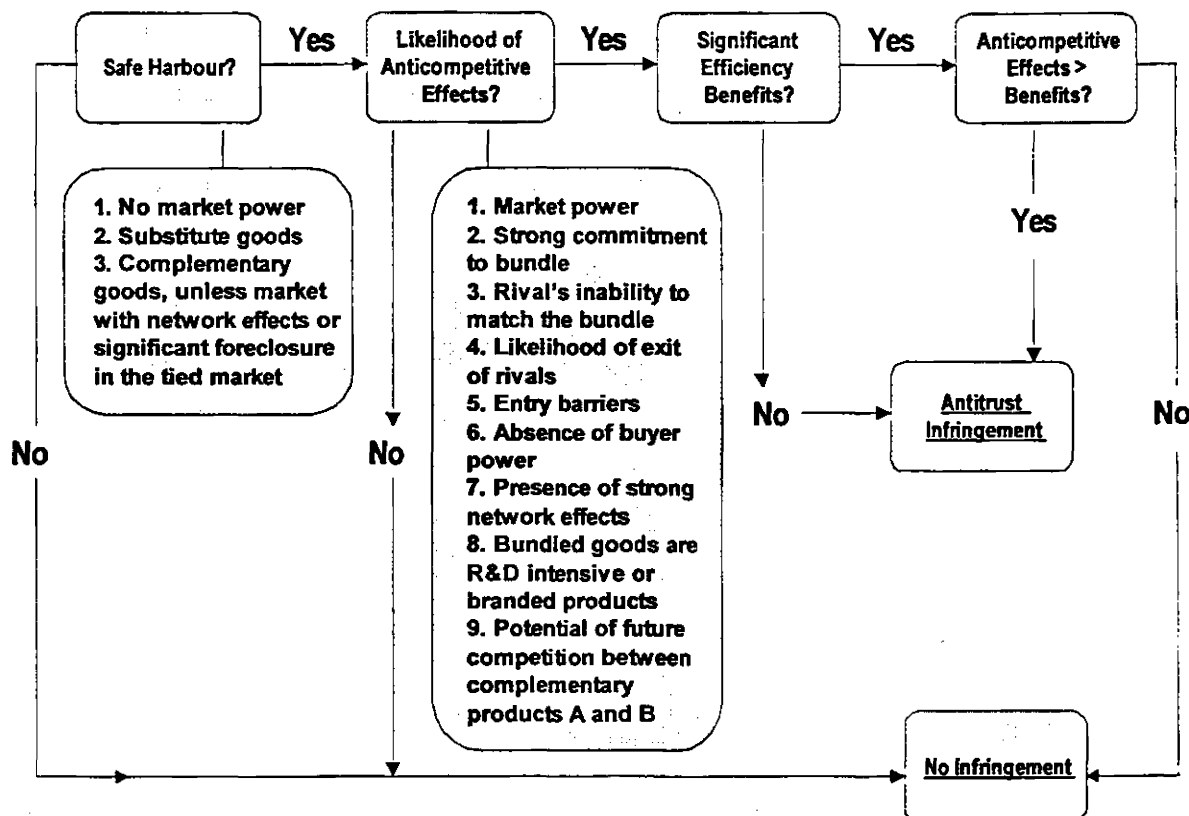
¹²⁶⁴ See EAGCP Report, p. 23-29.

¹²⁶⁵ See Kroes, "Tackling Exclusionary Practices to Avoid Exploitation of market Power – Some Preliminary Thoughts on the Policy Review of Article 82", speech 05/537, 23 September 2005.

¹²⁶⁶ For similar approach, see Regulation 772/2004 on the Application of Article 81(3) of the Treaty to Categories of Technology Transfer Agreements, [2004] OJ L 123/11, imposing safe harbours on the basis of market share thresholds.

¹²⁶⁷ For a different view, see Rousseva, "Modernizing by Eradicating: How the Commission's New Approach to Article 81 EC Dispenses with the Need to Apply Article 82 EC to Vertical Restraints", CMLRev. 587 (2005), pp. 637-638. Rousseva's paper is an excellent attempt to rethink the approach towards contractual abuses under EC competition law. As contractual practices like bundling and rebates are dealt with under both Article 81 EC and Article 82 EC, and Article 81 EC employs an economics-based approach considering also market power issues, she suggests releasing Article 82 EC from vertical restraints. However, she has a very narrow view on what are contractual abuses as she fails to recognise the overlap, for instance, between bundling and refusal to deal cases. She also fails to recognise that anti-competitive bundling like typical unilateral abuses requires market power amounting to dominance as a pre-condition for conduct to raise anti-competitive concerns.

efficiencies, the burden of proof should be placed on the defendant. The following figure summarises this approach:



5. A preference for *ex post* control

The Commission has a steadfast belief that bundling can and should be assessed under the merger rules. In fact, as Chapter 5 shows, the merger rules can *in principle* address bundling concerns. Given the objections I have to this approach, this should, however, be done only in very limited cases. From a dogmatic point of view, the Commission approach blurs the distinction between structural and behavioural instruments. Considering the role of Article 82 EC, I doubt the necessity of merger control to address bundling. More importantly, the bundling theory applied by the Commission faces inherently difficult predictions and evaluations that may result in erroneous merger decisions. I made two interrelated observations in this regard:

First, predicting *post-merger* outcomes is generally difficult, but prospective analysis of leveraging practices is extremely difficult. It is not the structure resulting from the merger itself that creates anti-competitive leveraging, rather *future conduct*. Leveraging will occur only after a certain amount of time and will result from practices like bundling engaged in by the new undertaking. Consequently, as the

Commission explained in *GE/Amersham*, "there must be a reasonable expectation that rivals will not be able to propose a competitive response, and that their resulting marginalisation will force them to exit the market."¹²⁶⁸

Second, the bundling practice predicted does not normally involve immediate price increases to consumers. To the contrary, it often implies price reductions. Bundling potentially affects rivals through diverting demand to the combined entity, thus lowering their profits. Of course, where leveraging concerns are raised, the Commission emphasises that any price reduction or output expansion directly following the merger is of a merely *strategic nature*. "Once rivals have exited the market, the merged firm must be able," the Commission stressed, "to implement unilateral price increases and such increases need to be sustainable in the long term, without being challenged by the likelihood of new rivals entering the market or previously marginalised ones re-entering the market."¹²⁶⁹ The reductions are thus of short duration, and consumer welfare will ultimately suffer as competitors are ultimately eliminated in the second market. The general stand of this thesis is to be very cautious about identifying imminent apocalyptic bundling by the new undertaking.

6. Critical examination of the bundling trilogy

A legal-economic assessment of *Hilti*, *Tetra Pak II* and *Microsoft* in Chapter 4 reveals that different conclusions from those reached by the Commission would have been possible. I explained that Hilti's efforts to bundle its nail guns with its own nails are likely to have been pro-competitive. It can be argued that the combination of safety and reputation were driving Hilti as consumers were to blame Hilti for bundle's failure when used with independent goods. The Commission reached, in my view, the right result in *Tetra Pak II*, but did not articulate the right reasons, namely leveraging in the long term.

As for the decision in *Microsoft*, I believe that there are serious leveraging concerns in the long term on two markets. Microsoft has a clear interest in killing all innovation in the media player market in order to protect its position in the Windows market. By the Windows-WMP bundle, Microsoft also seeks to tip the market for encoding software to itself. Conversely, I am critical about the chosen remedy. In my view, a combined unbundling and mandatory versioning remedy would have been better equipped given the characteristics of the market.

¹²⁶⁸ Case COMP/M.3304, *GE/Amersham*, at 37.

¹²⁶⁹ Case COMP/M.3304, *GE/Amersham*, at 37.

7. The need for guidelines

7.1. Introductory remarks

The Commission has recently announced its intent to reconsider its policy under the "last of the steam-powered trains", as one commentator refers to Article 82 EC.¹²⁷⁰ The Commission's aim is to make it compatible with mainstream economics, and to render Article 82 EC an instrument to ensure the pursuit of consumer welfare. In this context, it is more than advisable for the Commission to publish guidelines on Article 82 EC in general and in particular on bundling. There is also a pressing need to do so, given the fact that the national competition authorities in Europe became, on 1 May 2004, the principal enforcers of EC competition law.¹²⁷¹ The Commission has announced the publication of drafts in the first part of 2006.¹²⁷²

While the outcome may be expected to align the Commission's position with recent economic theory as well as antitrust thinking in the US on some aspects, significant differences will certainly remain. It suffices mention three factors in this context. First, all corners of Article 82 must be fully respected. Simply put, the Commission cannot change the text of the EC Treaty. The terms of Article 82 EC obviously differ from those of the Sherman Act. Thus, for instance, it is not open to the Commission or national authorities to refuse to apply that provision to certain types of abuse falling within its terms. Second, the Commission is confronted with the current case law of the European Courts. As I have discussed earlier, their approach under Article 82 EC is in general and in particular quite formalistic and form-based with regards to bundling.¹²⁷³ Like a ballet dancer, the Commission is required to do the splits. On the one hand, the Commission must recognise these Court decisions as they are still valid, but, on the other hand, should seek to develop a more effects-based enforcement policy within the outer-limits of the Courts. Third, as discussed above, EC competition is distinctly 'European.' It has therefore no unconditional trust in the functioning of the market, and takes a more long-term perspective of competition matters.

¹²⁷⁰ See Sher, "The Last of the Steam-Powered Trains: Modernizing Article 82" (2004) 243 ECLR.

¹²⁷¹ See Regulation 1/2003.

¹²⁷² Notably, the Commission is also about to develop guidelines for vertical and conglomerate mergers. These guidelines could likewise benefit from the suggestions made here.

¹²⁷³ For other examples of the form-based approach in relation to rebates, see Case T-219/99, *British Airways v. Commission*, decision of 17 December 2003 and Case T-203/01, *Michelin v. Commission (Michelin II)*, decision of 30 September 2003, not yet reported.

7.2. The basics of the guidelines

7.2.1. Aim of the guidelines and starting point of analysis

If the Commission publishes these guidelines, the aim is, in my view, that they should be clear and focused on undisputable findings. They should not be based on specific theoretical models. Instead, they should elaborate on general economic insights that have gained on bundling over the years. One main finding is that the effects of bundling depend predominantly on the characteristics of the relevant market. It is therefore essential that the guidelines provide detailed instructions how to assess those markets.

It is important that, as a starting point of analysis, the guidelines recognise that both undertakings with and without dominance pursue bundling strategies. Bundling is a common practice, and enforcement policy should be based on this prior belief. This recognition does not imply that bundling should be *per se* legal. As seen in Chapter 1, it must be scrutinised carefully when pursued by a company with market power. Under these circumstances, bundling can have significant anti-competitive effects depending on the market circumstances.

7.2.2. Leveraging in the long term: foreclosure effect of bundling

The guidelines should principally not consider leveraging in the short term. It is very unlikely that bundling results in immediate price increases in a second market. The Chicagoans have cogently discredited this concern. Conversely, the guidelines must consider the anti-competitive effects of bundling in the long term. Bundling is an excellent instrument creating foreclosure in the second market. This strategy can be motivated by the wish to extend market power to that second market or to defend the original position.

By foreclosure, I mean that actual or potential competitors are completely or partially denied profitable access to a market. By the bundling practice, the dominant company reduces the number of potential customers that is available to its rivals in the second market. This may cause existing rivals to be marginalised to the extent that they exit the market and create a barrier for new entry. It is important for the guidelines to recognise that network effects and high entry barriers in the second market make such a foreclosure strategy more likely and successful.

For bundling to be abusive, it should normally have an appreciable foreclosure effect on the second market. It is advisable to make such an assessment in two steps. First, it must be determined which customers are tied in the sense that rivals of the dominant undertaking cannot compete for their business. Second, it is then essential to assess whether these customers form a sufficient part of the market. In order to make the foreclosure assessment, the following factors may be useful, although they should not be applied in a mechanical way.

The first aspect to consider is the market position in the main market. If the main market is competitive, the bundle cannot force consumers to buy the bundled good as they can easily switch to competing goods that are offered without the bundle. Therefore, a necessary but insufficient condition for competitive harm is market power in the main market. The higher the market power, the easier it is for the undertaking to impose the bundle on its customers. The second aspect to consider is the market position in the second market. Bundling two products also bears the risk for the bundling firm to lose those customers who do not find the bundled product attractive and want to avoid it. This risk is higher if the company bundles it with an unattractive product with low market share. Leveraging is typically more likely if the second market already enjoys high popularity and remarkable market shares.

Third, the guidelines should focus on entry barriers. It should be considered if bundling forces new competitors to enter several markets at the same time, and thus raise market entry barriers and lower potential competition. Fourth, the guidelines should also consider the feasibility of counterstrategies. Competitors might form competing bundles leading to lower consumer prices. Strong buyer power could also prevent foreclosure effects.

7.2.3. Efficiencies can off-set foreclosure effects

Where there is evidence of potential or actual foreclosure, the dominant undertaking's behaviour cannot be considered as abusive if there are significant efficiencies.¹²⁷⁴ The guidelines should therefore take into account possible efficiency-enhancing effects of an alleged bundling.¹²⁷⁵ Cost reductions, quality improvements, safety issues or price discrimination might offset suspected anti-competitive effects. So

¹²⁷⁴ Case 27/76, *United Brands v. Commission* [1978] ECR 207, stating that "it is therefore necessary to ascertain whether the discontinuance of supplies by UBC in October 1973 was justified" (at 184).

¹²⁷⁵ Likewise Guidelines on the Assessment of Horizontal Mergers under the Council Regulation on the Control of Concentrations between Undertakings, [2004] OJ C 31/03, noting that "[i]t is possible that efficiencies brought about by a merger counteract the effects on competition and in particular the potential harm to consumers that it might otherwise have" (emphasis added, at 76).

far bundling-specific efficiency reasons have hardly been considered in the Commission practice. The guidelines can reach a major achievement in this context.

In order for bundling not to be abusive, it must be shown that all of the conditions for exemption under Article 81(3) EC are fulfilled. This test will generally be hard to satisfy, as dominance has already been demonstrated. For a start, the undertaking must surely demonstrate that its allegedly anti-competitive behaviour generates the efficiencies. This means that the efficiencies must be a direct consequence of the bundling practice.¹²⁷⁶ It is important here that the Commission takes an *ex ante* perspective: only the efficiencies at the time of the decision to bundle should be considered. Furthermore, it must be established that the claimed efficiencies are clear and attributable efficiencies.¹²⁷⁷ Some of the benefits of these efficiencies must be passed on to customers in the form of lower prices or better products. Finally, the practice should be the least restrictive way of achieving the efficiencies, and competition should not be eliminated with regards to a substantial part of the products concerned. The Commission must balance the size of the efficiencies against with magnitude of the actual or potential foreclosure harm.¹²⁷⁸

7.2.4. Multi-factor test to determine separateness

What can be considered as distinct products should be determined by a multi-factor test. By considering a spectrum of factors, this test reduces the risk of mistakenly finding two distinct products. The test should rely on the following three elements: (1) consumer perceptions (2) the view of manufacturers; and, (3) technological advance. An evaluation of the consumer's views should take into account both demand at the time of bundling and demand once bundling has been in place for a period of time. With regards to the manufacturers' point of view, it is necessary to consider the actions of other manufacturers as well as the defendant's intent in bundling the components involved. The third element is included as a sort of sanity check. Even if elements one and two, on balance, point to separate products, it must be assessed whether that would be the right decision considering the innovative character of the bundle.

¹²⁷⁶ Likewise Guidelines on the Assessment of Horizontal Mergers under the Council Regulation on the Control of Concentrations between Undertakings, at 85.

¹²⁷⁷ Likewise Guidelines on the Assessment of Horizontal Mergers under the Council Regulation on the Control of Concentrations between Undertakings, at 86-88.

¹²⁷⁸ For a different suggestion, see Advocate General Cosmas, in Case C-344/98, *Masterfoods v. HB Ice Cream* (2000) ECR I-11731, suggesting a stricter standard whereby the company under investigation must demonstrate that it could not do business without the alleged foreclosing behaviour (at 88).

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